DECEMBER
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fueloil & oil heat

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DECEMBER fueloil & oilheat 1956

VOLUME 15 NUMBER 12

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Among other things:

Front cover: Ralph Dennis, Boston Machine Works Co., Lynn, Mass., points out characteristics of an oilburner flame to Ed Burnett, Moncton, N. B., Canada. The occasion was a visit for the second consecutive year of the Boston School of Advanced Oil Heat Training to Liverpool, Nova Scotia. About 50 men attended classes in the Canadian Army Barracks, where special boiler equipment permitted operation of live burner installations as part of the training.

Of special interest in this month's editorial features is the article, "Oilheating's future Growth," a five-year projection of what's ahead. A burner manufacturer, oil refiner and fueloil distributor contributed their thinking to make the Fuel Oil Committee's meeting during the API annual meeting a memorable event. Condensations of all three opinions appear. See page 44.

Be sure to read, too, about Shell's burner laboratory and Douglas' report about a motel equipped for combination hot water heating and chilled water cooling.

QUALITY is our business ..without *any* compromise

***AND ONLY Guardian* GIVES YOU ALL THREE —**

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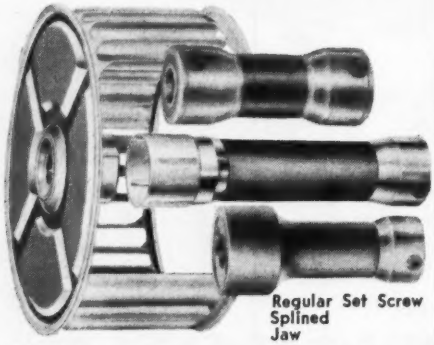

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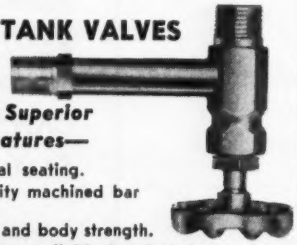

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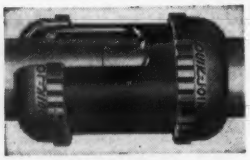

Steel compression fittings for connecting steel pipe.

Patent No. 2,685,460

- Eliminates threading of pipe.
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- Guaranteed for pressure up to 2000 P.S.I.
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Guardian
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MICHIGAN CITY, INDIANA

Names in the News

William T. Goldsmith, former sales manager of Delta Heating Corp. and heating control sales manager for General Electric Co., has been appointed general sales manager of Ingersoll Conditioned Air Division, Borg-Warner Corp., Kalamazoo, Mich. In his new position at the division's home office, he will be responsible for sales and advertising promotions.

Rembert A. Marquardt, 52, was killed recently when his car was hit by a train. He had been vice-president, secretary and controller of Bell & Gossett Co., Morton Grove, Ill. He is survived by his widow, two sons and a daughter.

Philip C. Kosch has been appointed to the newly-created post of manager, development builder department, Bell & Gossett Co., Morton Grove, Ill. He had been sales manager, Bryant Division, Carrier Corp. Prior to that Kosch had been associated for more than 15 years with the U. S. Machine Division, Stewart-Warner Corp., as national director of sales training.

William E. Konrad has been appointed merchandising manager, Heating and Airconditioning Dept., Crane Co., Chicago, Ill., to direct the sales program and to co-ordinate activities of the department's sales division and the advertising department. He also will serve as liaison with suppliers of warm air heating and airconditioning equipment.

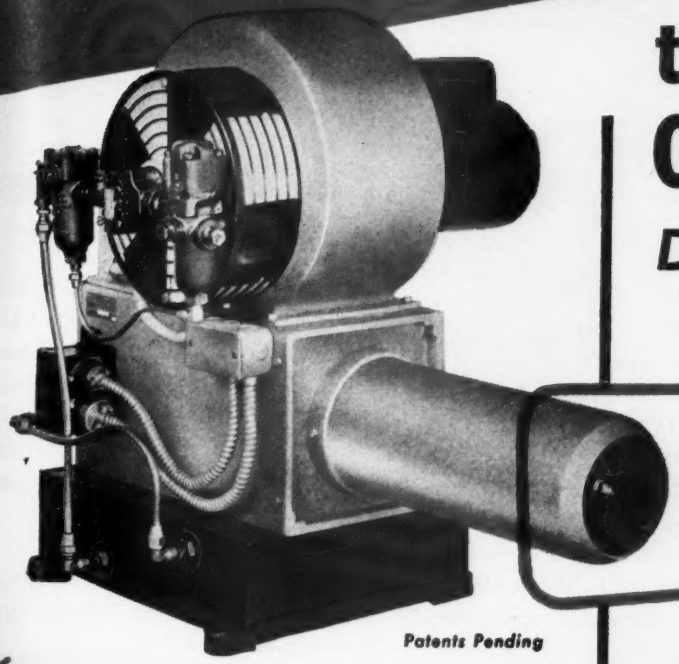
Edwin B. Olsen, in his new position as manager of Minneapolis-Honeywell Regulator Company's market planning, will be in charge of the firm's sales planning, manpower planning, market analysis and economic forecasting activities. He joined Honeywell after 10 years' experience with Westinghouse Electric Corp. in Chicago, most recently as regional manager of market planning for all divisions in the Midwest. A native of Bagley, Minn., Olsen was graduated from North Dakota State College, Fargo, N. Dak.

D. Paul Bailey, has been appointed marketing manager of Iron Fireman Mfg. Co., Cleveland, Ohio, following a year in the post of regional sales manager for the Ohio-Michigan area. He joined Iron Fireman in 1949, being promoted to assistant sales manager in 1953.

Roy Lewane has been appointed assistant advertising manager, Webster Electric Co., Racine, Wis. For the past three years he had been advertising production supervisor for Webster.

Remy Ludwig has been appointed vice-president of the international division of Controls Company of America. In his new post, Ludwig will supervise all administrative duties and management of the company's foreign plants in Cooksville, Ontario, and Nijmegen, Holland, in addition to the development of export sales for both A-P Controls and Soreng Products Divisions.

BIG SAVINGS YOUR CUSTOMERS WILL CERTAINLY WANT



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the NEW #4 OIL BURNER

DRASTICALLY CUTS FUEL COSTS

Converts #4 (and #5) Oil to Burn Efficiently as #2 Oil.

✓ ***APPROVED*** for #4 fuel oil by Underwriters' Laboratories, Inc., and by the Board of Standards and Appeals of the City of New York.

✓ ***BEST BET*** for cutting fuel bills in apartment houses, schools, institutions, commercial and industrial buildings and heating processes by using lower priced fuel oil.

✓ ***AUTOMATIC*** — Electric fuel converter system, complete with safety shut-down and mechanical oil cut-off, is thermostatically controlled — automatically. Complete assembly easily accessible for quick service.

- Built-in "Thermax" Converters Reduce Heavy Oil to Light Oil
- As Quiet as a #2 Oil Burner
- Easy to Install and Service
- No Complicated Parts
- Can Use Existing Piping in Practically All Cases
- 3 Sizes—3 to 20 G.P.H. Larger Sizes Available Later

Write for Bulletin and Prices

Inquiries Invited from Boiler and Furnace Manufacturers

SUN-RAY—FAMOUS THE WORLD OVER FOR QUALITY AND ECONOMY

Models for Every Heating Need in Sizes from 0.5 to 22 g.p.h.

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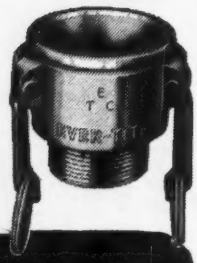
Standard Adapter
and Coupler

Your best buy is

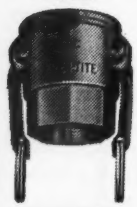


EVER-TITE
-the best quality
QUICK COUPLINGS

You save *time* and *money* when you use Ever-Tite Couplings because they speed-up deliveries, prevent leakage, and save wear on equipment.

Tightness is predetermined in manufacture by positive gasket compression. There are no sliding rings—no springs, ball bearings, snaps or lugs to fit. You just slip the coupler over the adapter, and close the handles.

If you want to get the *most* in coupling value get *Ever-Tite*. The Ever-Tite Trademark is a hallmark of dependability in fittings for the petroleum industry—proved by 18 years of pre-eminence. Ask your distributor now.



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Coupling

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Dust Plug

Dust Cap

Every EVER-TITE saves time and money

EVER-TITE Dust Protectors

Carl W. Ferris has been promoted to manager of the Du Pont Company's Petroleum Chemicals Division, newly-formed Chicago district, which will include Illinois, Indiana, Missouri and parts of Michigan, Iowa, Kentucky, Tennessee and Wisconsin. He has been an account manager with headquarters in the Chicago regional office of the Petroleum Chemicals Division.

M. C. Ihrke has been appointed manager of heating control and special purpose control sales, appliance control department, General Electric Company, Morrison, Ill. He joined General Electric in 1941. Ihrke has had extensive experience in the appliance field, having held engineering positions with the company's small appliance division, the electric sink and cabinet department and the household refrigerator department of the major appliance division.

Edmond H. Haugen, newly-appointed chief engineer in charge of development and engineering of new products for Skuttle Manufacturing Co., Milford, Mich., brings to his new post more than 31 years' experience in the heating and airconditioning field. Prior to his new appointment, he was associated with Timken Silent Automatic Division of Scaife Co., Oakmont, Pa.

Forrest H. Blanding has been named head of the newly-created distribution and exploratory research section of Esso Standard Oil Company's economic and marketing research division. With Esso since 1940, he had been heading the correlations and special studies section in the process research division, Esso Research and Engineering Corp., Linden, N. J.

George B. Earl is the new sales manager of the service body division and *John B. Hayes* is advertising manager for the four product lines of Morrison Steel Products, Inc., Buffalo, N. Y. Earl formerly was a department manager with the Ford Motor Co. Hayes, who will supervise advertising of MorSum warm air furnaces and airconditioners, overhead doors, service bodies for trucks and Packaged Comfort Heat, previously had been advertising manager, Rigidized Metals Corp., Buffalo.

Earl

Hayes

Warner Lewis, Jr., has been named midwest zone manager, Warner Lewis Co., a division of Fram Corp., Tulsa, Okla. He will be in charge of the new office in Chicago and supervise activities of company representatives in Illinois, Ohio, Indiana, Wisconsin, Michigan and eastern Missouri. Lewis had been assistant sales manager in charge of sales in the western United States.

Gurth Baldwin has been named branch manager in St. Louis, Mo., and *Richard H. Byers,* branch manager in Cleveland for Iron Fireman sales and service. Baldwin joined the company in 1947 as assistant service manager of the Cleveland branch, later becoming installation manager and, last year, branch manager. Byers, who succeeds Baldwin in Cleveland, started with the Cleveland branch in 1948, later being transferred to the company's national headquarters in Cleveland. Until his new appointment, he was assistant to the industrial sales manager, S. H. Beach.

Never-say-die dependability...

proved on the Alcan Highway!

The Alcan test run was supervised and certified by the AAA.

NEW TASK·FORCE 57 CHEVROLET TRUCKS

Six new '57 Chevy trucks tamed the rugged Alcan in one round-the-clock sprint. They covered the grueling run (normally a 72-hour trip) in less than 45 hours to prove their durability!

They took everything the truck-killing Alcan could dish out—and not a single unit dropped out or turned back due to mechanical failure! They turned in top scores for performance and economy, too! Look over the Alcan Highway Champs at your Chevrolet dealer's. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

NO JOB TOO TOUGH FOR THE ALCAN CHAMPS!

You get Alcan-proved dependability in whatever medium- or heavy-duty model you choose. Put a new Chevy to work for you and take advantage of its extra stamina, its time- and money-saving ways!

PROVED ON THE ALCAN HIGHWAY... CHAMPS OF EVERY WEIGHT CLASS! CHEVROLET

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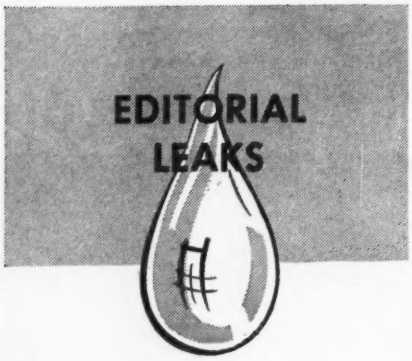


HOW QUICKLY bad news can travel, be it real or imaginary. The Suez crisis was only a few hours old when the first commentator predicted an oil shortage for the United States.

Daily since then someone else has beat the drum. Today, November 16, as this is being written United Nations troops already are in Egypt, yet a columnist in a New York daily discloses, "We'll have enough fueloil for home heating provided we don't get an unusually cold winter."

Little wonder that fueloil distributors are worried, not over running out of oil but over the effect that all of this talk will have on their future growth.

On this date no one is sure how the Mid-East will settle down. If a big war should develop with us in it, which is quite a remote probability, we could see trouble for fueloil. Anything short of that will pass with hardly a ripple.

We could cut off all imports of oil tomorrow and produce in this country considerably more than we need.

That disclosure was one of the highlights of the annual convention of the American Petroleum Institute on November 14 at Chicago. It was contained in a very significant paper by Dr. Richard J. Gonzales, director and chief economist of Humble Oil and Refining Co., Houston, Texas. Humble is an affiliate of Standard Oil Co. (N. J.), the world's largest oil enterprise, and perhaps the largest investor in the Middle East.

The views of Dr. Gonzales are highly respected by top levels throughout the petroleum industry. Here are some quotations from his paper:

"Recent international developments illustrate the hazards involved in using oil from distant sources and emphasize interest in the ability of the United States to produce additional oil immediately. Fortunately, reserve productive capacity is more than sufficient to offset any loss of imports. We are in a much stronger position to work effectively for a sound solution of international problems, therefore, than if we were dependent on foreign oil supplies for the continued operation of our economy.

"After consultation with representatives of oil regulatory agencies in the principal producing states, the Director of the Interior Department's Office of Oil and Gas recently stated that the United States could increase its crude oil output by 2,250,000 barrels daily above the actual production of 7,150,000 barrels daily. This reserve capacity compares with average imports in the first 10 months of about 1,425,000 barrels daily of crude and refined products. It is reassuring indeed to know that we could produce more than our present requirements from domestic sources alone.

"Concern has been expressed by some during the past year that the estimated productive capacity could not be maintained for more than a few months because it represents a more rapid rate of withdrawal from proved reserves than was experienced in 1948, the last time that production was practically at maximum efficient rates. Analysis of developments in recent years reveals the following reasons why a higher rate of efficient production from proved reserves can be maintained now than in 1948.

"1) A larger proportion of new wells. Completions of new wells were 102,000 in the seven years 1942-1948 and 180,500 in the comparable period 1949-1955. At the end of 1948 there were 437,900 total producing wells and at the end of 1955 there were 524,000. The new wells of the preceding seven years represented 23% and 34%, respectively.

"2) A more intensive development of proved reserves. In Texas, which accounts for more than half of all the known oil in the United States, there are now 10.7 producing wells per million barrels of reserves, compared with 9.1 in 1948.

"3) More adequate transportation facilities in the Rocky Mountain area. In 1948 production in this area was limited by lack of pipeline capacity to markets. Production in that year represented 7.4% of proved reserves. This year it has reached a level of 9%, and the National Petroleum Council estimates that it can produce at 10.8%.

"4) More pressure maintenance and water flooding projects. Significant developments have occurred since 1948 in unitization projects which increase both recoverable reserves and the rate at which these reserves can be produced on a sustained basis.

"5) Efficient operation of water drive fields. In a number of major fields an effective water drive serves to sustain productive capacity effectively over a long period of production.

"6) Better techniques of stimulating production. Since 1948 methods of stimulating production by fracturing and better performation of wells have been applied with striking results on the rate at which reserves can be produced.

Long-Term Availability

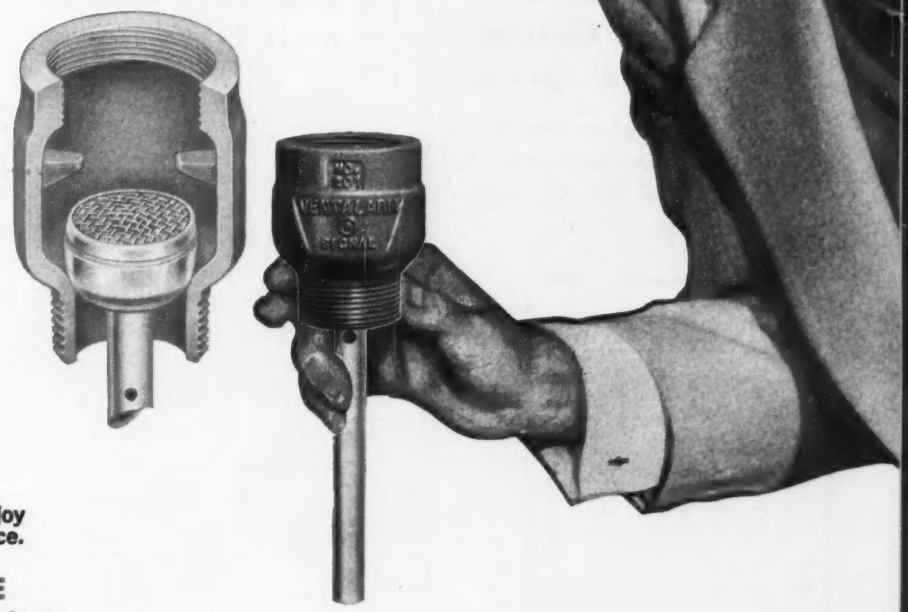
"The ability to produce reserves faster means that current supplies are adequate, but does that also mean that we may be hastening the day that the United States will run out of oil? If we have discovered half of the oil that is to be discovered and if discovery hastens the day when there will be no more oil to find, many people might feel that we should slow down the use of our domestic resources and use more foreign oil immediately in order to postpone the evil day of great dependence on foreign oil. Fortunately, we do not appear to be near the time when the U. S. has to worry about running out of oil. The rate at which new oil is being developed in the United States has increased steadily to date and the current level of operations will mean an increase in the rate of discovery for the foreseeable future.

"Cumulative discoveries of crude oil in the United States through 1955

be sure you get the inside story

on original and dependable VENTALARM®

WHISTLING TANK FILL SIGNAL



featuring "Built-In Whistle Protection"

Now . . . there is a non-corroding screen inside all VENTALARM Signals and VENTALARM GAUGES . . . sealed into position over the whistle top opening. This guarantees that no bugs, pipe scale or other foreign matter will get into the whistle to stifle the sound . . . a further betterment to assure proper, positive performance in fuel tank filling safety!

Over 4,000,000 oil heated homes now enjoy trouble-free VENTALARM Signal performance.

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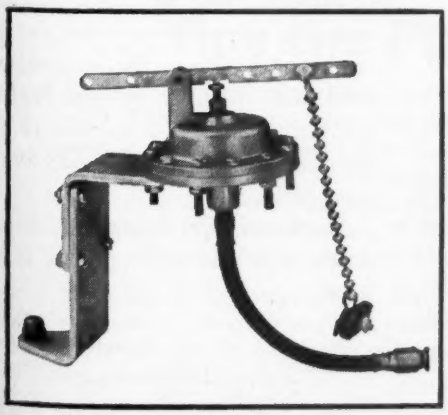
For new installations . . . don't forget the money-saving convenience of VENTALARM Signal in combination with a tank gauge.

and Other Scully Fuel Oil Delivery Aids



Scully Throtlator®

Automatically controls fuel oil pumping speed. Ends hand throttle adjustment and needless racing of truck motor and pump. Automatically adjusts engine speed to proper RPM for maximum pump efficiency when power take-off is engaged. Only 4" square; easily installed under the engine hood near the carburetor.

Scully® Swivel Connector

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Scully® Nozzle

Engineered for modern fuel oil delivery. Provide for full-flow discharge rates. Allows infinite adjust ment of flow rate. Cut-off is clean; surge eliminate Only half the weight of a conventional nozzle t handle. Has built-in check valve.

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Scully Products are manufactured under U. S. and Foreign Patents or Patents Pending.

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SCULLY SIGNAL COMPANY

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Canadian Branch: Scully Signal Ltd., 286 King St. W., Toronto, Ontario.

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This is the new gauge designed to meet your wants, according to our recent survey.

THE

Tattle-Tale

TRADEMARK

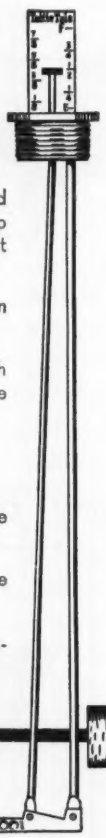
• Dot 7-C

Oil Tank Gauge

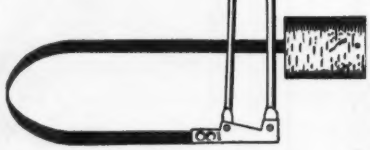
for 1½" and 2" openings

The new trouble-free low priced gauge with exclusive features not found in many of the highest priced gauges.

7 Ways BETTER



1. An easy-to-read molded plastic top that laughs at the hot rays of the sun.
2. Excellent visibility in dark places.
3. Designed for both inside and outside installations.
4. Heavy die-cast plug.
5. Spring steel flexible float rod.
6. Moving parts hinge on brass pivots.
7. Overall rugged construction.



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If you are one who has not stocked this fast-selling gauge, write for free sample.

WRITE FOR OUR LOW PRICES

homeward Products Inc.

3420 S. W. 9th St.
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exceeded 82 billion barrels. According to records of production and official estimates of reserves made at the time, the new oil discovered was 13.2 billion barrels in the sixty-six year period 1859-1925, and then for the next three decades 17.4 billion barrels, 20.8 billion barrels, and 30.9 billion barrels, respectively. Nothing in this record suggests any slowing down in the rate of discovery. In terms of results per well drilled, only a slight downward trend is evident over the past thirty years, and this trend may be checked or reversed for the next ten years by the high results per well expected from offshore drilling.

"For the past twenty years the development of new oil has kept pace with the completion of oil wells. In 1956, about 59,000 total wells and 32,000 oil wells will be completed in the United States. On the basis of experience in the period 1936-1955, this rate of drilling maintained over a decade should develop more than 40 billion barrels of new oil. Since drilling responds to the volume and value of production it will be surprising indeed if drilling and development of new oil over the ten years 1956-1965 does not exceed the rate in 1955.

"There is no way for anyone to know how much oil will be found in the United States. The answer will depend on economic variables and national policy as well as on the unknown quantity of oil existing beneath the surface of the earth."

Recently, some estimates that the United States will produce ultimately only 150-200 billion barrels of oil have attracted widespread attention because they indicate that the United States will reach its maximum production in ten or twenty years and be running out of oil before long. Much less attention has been given to an estimate by the Department of Interior which is 50-100 per cent higher: "Considering that trends in production and discovery are still headed upward, and that significant improvements in recoverability are now being accomplished or promised in the future, a total of 300 billion barrels as the ultimate reserves of the United States and of the adjoining Continental Shelves seem to be a reasonable figure." (From 1859 to date we have taken from the ground 52 billion barrels).

Dr. Gonzales had a lot more to say about imports and economics. His paper covers 18 printed pages, including tables and charts. If you want a copy write the American Petroleum Institute, 50 West 50th Street, New York 20, N. Y.

But you have read the parts that directly bear on our problem of convincing customers and prospects that the United States faces no supply problem. In fact we can help our European neighbors out of the Caribbean refineries and spare some oil from our own shores.

Europe may bid us up a little. Spot buyers in New York have already sold some cargoes to Britain but they were at a premium of only ½¢ above local harbor prices. Certainly no run-away market is to be expected.

It is the time to demonstrate confidence by pushing for sales of both oil and new equipment installations. From where we stand, the year ahead looks good.

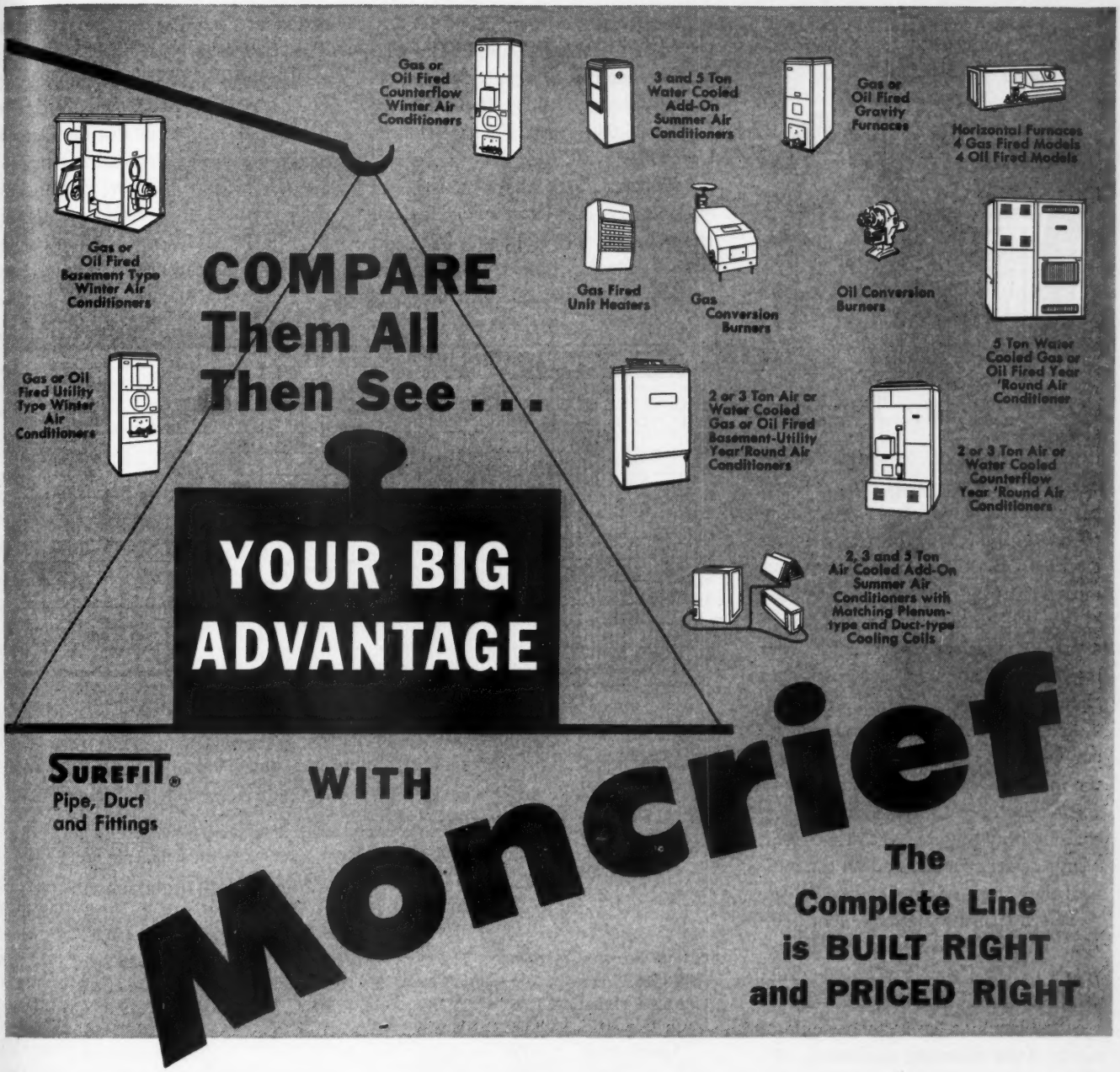
❖

Big Burner Shipments for September below Average

SHIPMENTS of commercial-industrial oilburners for September show a downward tendency and fall below the seven year average for that month, D. H. Bottrill, secretary of Market Research Committee, Oil-Heat Institute of America, Inc., has reported. However, the total shipments for the first nine months is up, the accumulative total from January through September being 25,797, an increase of 3% over last year's total of 25,028 for the same period.

Shipments for September, broken down as to size and type, are as follows:

	Oil-burners	Gas-Oil burners
HORIZONTAL ROTARIES		
2½ and Under	77	..
Over 2½ to 8	31	1
Over 8 to 30	609	14
Over 30 to 100	461	26
Over 100	85	3
TOTAL SHIPMENTS	1263	44
GUN TYPE		
Over 5 to 30	2211	142
Over 30	41	7
TOTAL SHIPMENTS	2252	149
ATOMIZING		
30 and Over	57	..
TOTALS, ALL TYPES	3572	193


Gas or Oil Fired Counterflow Winter Air Conditioners
3 and 5 Ton Water Cooled Add-On Summer Air Conditioners
Gas or Oil Fired Gravity Furnaces
Horizontal Furnaces 4 Gas Fired Models 4 Oil Fired Models
Gas or Oil Fired Basement Type Winter Air Conditioners
COMPARE Them All Then See . . .
Gas Fired Unit Heaters
Gas Conversion Burners
Oil Conversion Burners
5 Ton Water Cooled Gas or Oil Fired Year 'Round Air Conditioner
Gas or Oil Fired Utility Type Winter Air Conditioners
2 or 3 Ton Air or Water Cooled Gas or Oil Fired Basement-Utility Year'Round Air Conditioners
2 or 3 Ton Air or Water Cooled Counterflow Year 'Round Air Conditioners
YOUR BIG ADVANTAGE
2, 3 and 5 Ton Air Cooled Add-On Summer Air Conditioners with Matching Plenum-type and Duct-type Cooling Coils
SUREFIT® Pipe, Duct and Fittings
WITH
Moncrief
The Complete Line is BUILT RIGHT and PRICED RIGHT

. . . Tips the Profit Scale in YOUR FAVOR!

Simplified Ordering: From one source, your Moncrief Wholesaler, you order what you need, when you want it — the finest Gas, Oil or Coal Furnaces; Year 'Round and Summer Air Conditioners; Gas or Oil Conversion Burners; Gas Unit Heaters and the tops in prefab' Pipe and Fittings. With all this to offer, you need not carry a heavy stock of Moncrief.

Simplified Pricing: With Moncrief you have a consistently competitive price, year-in and year-out — made possible by high sales volume and corresponding production savings.

Simplified Handling: Moncrief equipment is fully packaged at the factory, including Moncrief Surefit Pipe Fittings. Many Moncrief Units are shipped assembled and wired — and even those, which it is not practical to factory-assemble, are packaged as easy-to-handle components.

Simplified Installation: Naturally, factory-packaged units are easier to install — and Moncrief is noted for equipment designed with the installer in mind.

See Your Moncrief Wholesaler: Why not let these Moncrief advantages start tipping the profit scale in your favor, right now?

Your Moncrief Wholesaler has the selection, the prices and the one-stop service you may be needing.

THE HENRY FURNACE COMPANY • *Medina, Ohio*

HEATING AND AIR CONDITIONING UNITS — MONCRIEF — FURNACE PIPE AND FITTINGS

fueloil & oilheat

Oilheating Trends

INSTALLATIONS of oilheating equipment for domestic uses during October are estimated at 102,645 compared with 88,415 for the previous month and 127,574 for the same month last year.

It is well to remember that October a year ago was the biggest month ever listed in our statistics. It represented about 18% of the total oilheating installed last year—and as you remember well, last year was a fine one for the industry.

The October estimate is the largest monthly figure yet this year. Many dealers commented on the business they were doing.

Ten month installations were 610,103. This figure when related to last year's 698,922 shows a 12.7% drop.

The October installations were divided: New Homes: 34,094; Replacements of old oilheaing equipment, 19,351; and Conversions from other fuels, 49,200.

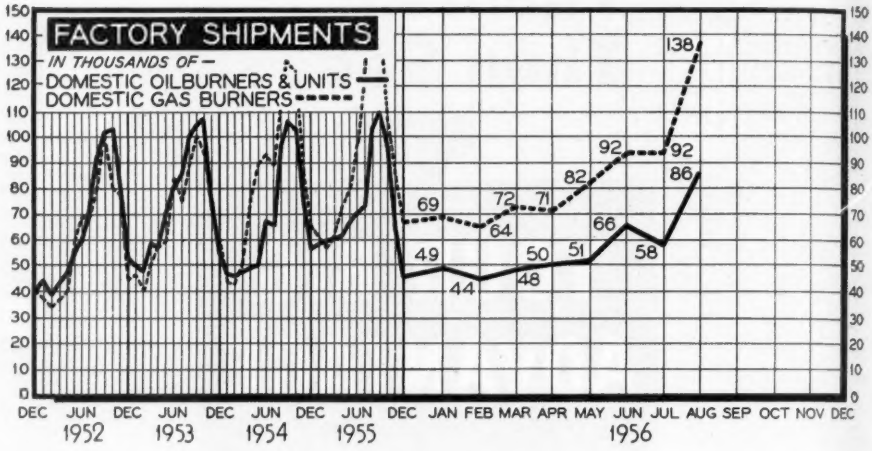
Burner Stocks: Dealers had on hand at the end of October approximately 107,632 domestic oilburners and units.

September stocks were 104,140 and year ago October, 128,788. The current inventories were divided: Separate Burners, 53,603; Boiler-Burner Units, 23,954; and Furnace-Burner Units, 30,075.

Manufacturers' stocks at the end of September, the latest available data, were 52,437, only 3% above last year.

Tank Stocks: Stocks of customer tanks in dealer warehouses are estimated at 56,637 as of November 1. This compares with 51,113 a month earlier and 46,330 October, a year ago.

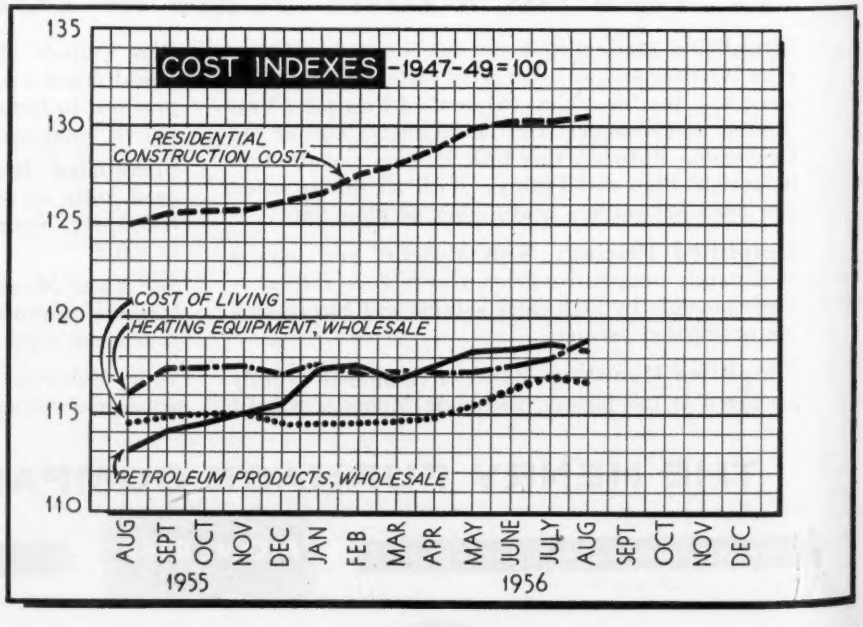
The average price paid by dealers for a 275 gal. tank during October was the same as September's price—$34. By sections, in New England the price was $31; in Middle Atlantic, $36; in the Midwest, $28; and Pacific, $42. This indicates that there has been a stabilization of tank prices. For the


FACTORY SHIPMENTS
IN THOUSANDS OF—
DOMESTIC OILBURNERS & UNITS
DOMESTIC GAS BURNERS
DEC JUN DEC JUN DEC JUN DEC JUN DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1952 1953 1954 1955 1956
69 64 72 71 82 92 92
49 44 48 50 51 66 58 86 138

Shipments of Oilburners and Units
(Including Exports)

Adjusted to include manufacturers other than the 145 reporting to Census Bureau, FUELOIL & OIL HEAT's estimates of shipments are:

	SEPTEMBER			NINE MONTHS		
	1956	*1955*	*Percent Change*	*1956*	*1955*	*Percent Change*
Separate Burners	58,964	71,718	— 17.8	350,300	429,567	— 18.5
Boiler Units	13,955	11,969	+ 16.6	53,435	64,031	— 16.5
Furnace Units	25,762	25,289	+ 1.9	146,988	159,858	— 8.1
All Domestic	98,681	108,976	— 9.4	550,723	653,456	— 15.7
Commercial	3,999	4,677	— 14.5	30,390	28,954	+ 5.0
Total	102,890	113,653	— 9.5	581,113	682,410	— 14.9


COST INDEXES -1947-49=100
RESIDENTIAL CONSTRUCTION COST
COST OF LIVING
HEATING EQUIPMENT, WHOLESALE
PETROLEUM PRODUCTS, WHOLESALE
AUG SEPT OCT NOV DEC JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC
1955 1956

Minimum Retail Prices of Key Dealers

	Oct. Avg.	*Sept. Avg.*
Separate Burners	$313	$312
Boiler-Burners	720	720
Furnace-Burners	606	602

Price Index: Separate Burners 1947-49 is 100%

WHOLESALE

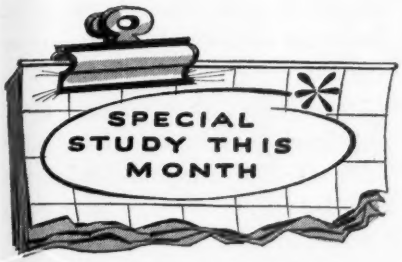
Oct.	94.5	Six months ago	93.2
Sept.	94.1	Year ago	89.6

RETAIL

Oct.	92.8	Six months ago	90.0
Sept.	92.8	Year ago	89.2

past few months, since the steel strike, there has been a three dollar price increase.

The October tank stocks were divided by sizes as follows: 220-275 gal., 51,686; sizes 550 to 675 gal., 3194; and sizes 1,000 gal. or larger, 1757.



Trading Stamps: Considerable industry apprehension surrounds the topic of trading stamps. It was for this reason that we decided to ask the cooperating dealers for their thoughts on the subject. We wanted to find out if stamps actually do any good for either the marketer or the customer and exactly what their impact is on different markets.

We first asked if trading stamps have become much of a selling factor in the individual communities. Nationally, we find that 62% of the dealers recognize stamps as quite a factor in the retailing of all commodities. Less than half of the New England dealers (42%) find this to be true. Two-thirds of the Middle Atlantic and Pacific dealers say stamps are popular, and 62% of the Midwest dealers.

Stamps are less of a factor in fueloil than other commodities, according to the dealers, 46% of whom reported that some oil companies in their area were using stamps. This practice is most prevalent in the Pacific Northwest where dealers noted that at least one company in almost every community had a stamp program. Only a third of those in the Middle Atlantic area knew of fueloil dealers in their communities using stamps; 60% in New England; and 43% in the Midwest.

Only 5% of the reporting dealers use the stamps themselves. And besides the popular S & H stamps they are using the Prudential and Thrifters plans.

About a quarter of the dealers feel that stamps actually raise the gallonage for a fueloil company. Again, where the impact is greater, all the Pacific dealers felt that gallonage is increased. Other areas were much less impressed: New England, 29%; Middle Atlantic, 14%; and Midwest, 13%.

Among those who do feel that gallonage is increased, the overall opinion was that a company could probably swell its gallonage 12% in about two and a half years, which is certainly not phenomenal.

Then we get down to the most important question. Is it worth it in terms of dollars and cents? Our reporting group felt that it costs about 3% of sales to be involved in such a plan. They put it another way—trading stamps cost nearly 0.32 cents per gallon.

This is pretty expensive in terms of our September survey of fueloil economics. At that time we found that the average margin of all the dealers was 3.61¢. After bulk plant, retail delivery, sales costs and general overhead were taken out this left a profit before income taxes of 1.06¢. Shave this further by .32¢ (the estimated cost of a stamp plan) and .74¢ is left as profit before income taxes.

Most of the reporting dealers (89% of them) feel that the only benefit is promotional. However, some of the additional advantages, all single mentions, were as follows: A better turnover in accounts receivable. . . . Results in some heating equipment prospects. . . . Stops turnover of customers from year to year.

We asked the dealers to identify the type of fueloil companies using stamps in their areas. In their opinion, 54% of these companies were of the fueloil and oilheating variety as opposed to 46% of the gasoline jobber type.

Many of us have asked, "How long will trading stamps be a factor?" And the reporting dealers seem to feel it will be nearly three years before the thing wears itself out or enough competitors use them and so destroy their appeal.

Another important facet of the situation is how it is affecting our industry relations. We had heard that one of the side results of trading stamps was poorer service. However, 92% of the reporting group feel that service standards have not been lowered by companies using the plans.

Just how many customers are actually interested in getting something for nothing? To measure this we asked

Oilheating Permits*

OCT. 1956		10 MONTHS 1955	1956
8	Albany, N. Y.	77	54
160	Baltimore, Md.	501	584
207	Bridgeport, Conn.	1265	1116
..	Columbus, O.	324	..
93	Detroit, Mich.	..	1110
..	Elizabeth, N. J.	330	..
..	Freeport, N. Y.	360	..
..	Hartford, Conn.	503	..
32	Irvington, N. J.	292	331
75	Mediden, Conn.	418	511
..	Milwaukee, Wis.	4557	..
18	Minneapolis, Minn.	180	175
27	Montclair, N. J.	163	148
13	Morristown, N. J.	69	60
35	Mt. Vernon, N. Y.	292	233
201	Newark, N. J.	1227	1145
129	New Bedford, Mass.	925	857
77	New Haven, Conn.	329	312
40	New Rochelle, N. Y.	319	219
289	Norfolk, Va.	559	653
20	Omaha, Nebr.	..	..
15	Orange, N. J.	126	125
16	Passaic, N. J.	109	95
89	Paterson, N. J.	427	454
548	Philadelphia, Pa.**	2785	2592
150	Portland, Me.	632	631
269	Portland, Ore.	3524	2613
15	Poughkeepsie, N. Y.	163	123
..	Providence, R. I.	805	..
92	Richmond, Va.	391	448
150	Roanoke, Va.	1034	987
152	Rochester, N. Y.	1265	953
13	Rockville Centre, N. Y.	134	108
36	Salem, Mass.	404	385
..	St. Louis, Mo.	1782	..
15	St. Paul, Minn.	103	79
0	Schenectady, N. Y.	90	56
..	Spokane, Wash.	..	..
192	Springfield, Mass.	1397	..
18	Stamford, Conn.	251	214
96	Washington, D. C.	445	430
34	White Plains, N. Y.	242	194
60	Wilmington, Del.	412	309
..	Worcester, Mass.	1136	..
73	Yonkers, N. Y.	452	299
3457	Totals	19605	17493
	Percent Change		—10.8

*Permits are not total sales in each market since none are reported from suburban areas, which normally account for 20% to 60% of total sales in each market; nor are they an accurate index where enforcement is lax. Rightly used, however, they are a useful working index.

**Courtesy of "Philadelphia Inquirer."

what per cent of customers ask about trading stamps. Only 1% was the answer.

A good way to measure the impact of any competing promotional device is to determine how it is hurting the dealer, and we found that only 2.7 accounts have been lost per dealer because the customer switched to another company handling stamps. The average dealer in this study had 1,878 customers.

But 15% of the dealers reported a significant increase in price cutting in the markets where stamps are used.

Comments from dealers this month were varied and in some cases explosive. Here are some to add dimension to the study:

"For past several years, we mail to all fueloil customers a 10% card which entitles them to a discount off list prices on any electric appliance in our store." . . . "Some fueloil distributors have given stamps in the past, but the cost has been so high they have given them up."

"Trading stamps, a cancerous growth that helps none and harms all." . . . "With or without stamps we have price cutting." . . . "We give 2% cash discount, as most other dealers do; if they don't give stamps." . . . "There is no gain from stamps because if one or two of the prominent companies used them everyone would have to follow suit—see the supermarkets." . . .

Will last 10 Years

"Trading stamps will last 10 years; it is difficult to take away anything that is given free." . . . "We do not believe they will work as drivers will undoubtedly keep stamps and cash them in themselves; the whole thing is bad for a fueloil distributor." . . . "2½ mills would take all of our possible profit." . . .

"We wish stamps could be declared illegal." . . . "We must do all to fight gas heating." . . . "We dread the day a local dealer should begin such a program." . . . "The biggest price cutting is done by kerosene peddlers who have no service departments."

"Our neighbor tried stamps; in three years his gross sales increased $500—less than the cost of the stamps." . . . "We have used S & H green stamps for four years with very good results; they help accounts receivable." . . . "We think trading stamps of any kind are a very poor method of increasing business; unless we are forced into it, we will never use them." . . .

"Lord help us if we have to go to stamps." . . . "This idea is not based on sound economics." . . . "A distributor who does not make 3% of sales just can't make out." . . . "I trust that the oil men in this area are smart enough to realize that there is nothing to be gained with the use of stamps."

Might improve Collections

"Stamps might improve collections slightly if the stamps were given upon payment of oil rather than delivery of oil." . . . "The cost of stamps will discourage their use as dealers will find; they'll lose customer appeal after awhile." . . . "Just another 'sales gimmick' which the consumer must ultimately pay for in some way at some time in the future." . . .

"Some dealers that use stamps claim it is a headache and will get out of it as soon as possible." . . . "We will not use stamps, regardless of what others do in our area." . . . "People are stamp crazy." . . . "Stamps increase business; we have lost many fueloil customers because of S & H." . . .

"Stamps cheapen a company's advertising of its products—they advertise stamps instead." . . . "Stamps at the moment are a necessary evil as it is our better customers who request them."

"Our market is so cut price that I don't think stamps have really affected retail prices; for example: one of our competitors advertises his retail price on minimum deliveries of 200 gals. at 13¢; ours is 15.2¢."

"Just one company uses stamps at the present time; and he limits his advertising of the stamp idea." . . . "We are running into considerable amount of rebating particularly on commercial accounts who have been paying regular tank wagon prices in the past." . . . "Price cutting would be the first step in answer to stamps."

OHI consumer Film to be Telecast in 70 Cities

STARTING December 15 and continuing throughout the year, the consumer, promotional film prepared by the Oil Heat Institute of America, Inc., on automatic oilheating, "Housewarming Party," will appear in 15-minute telecasts in 70 cities, Fred Heaney, OHI distributor division chairman, has announced.

Under terms of a contract signed with Sterling Television Distributors USA, the 13½ minute, color film, preceded and followed by appropriate commercials, will be shown in the following cities, with others to be added later: Hartford, New Haven, Wilmington, Washington, D. C.; Jacksonville, Miami, Boise, Chicago, Rockford, Indianapolis, Des Moines, Portland, Baltimore, Boston, Springfield.

And, Detroit, Grand Rapids, Lansing, St. Louis, Reno, Manchester, Newark, New York, Albany, Buffalo, Rochester, Utica, Raleigh, Cincinnati, Cleveland, Eugene, Portland, Bethlehem, Harrisburg, Lancaster, Philadelphia, Reading, York, Providence, Charleston, Spartanburg, Chattanooga, Norfolk, Richmond, Seattle, Spokane, Martinsburg, Madison, Milwaukee and Vancouver, British Columbia.

The fifty cities listed above comprise the main areas in which OHI distribution division chapters function and which will be given preference in the TV promotion. Telecasts will occur at the rate of ten to thirteen a month over a period of approximately a year.

Local groups will be notified two weeks in advance of their local telecast so that they may tie-in a local promotion, Heaney said.

George Hochstein, president of the Oil Heat Institute, Inc., in commenting on the TV promotion, said that "this was the most forward looking promotional project yet to be conceived by OHI and that its advantages in promoting automatic oil heating would be incalculable." Fred Beckwith, honorary chairman of the distribution division, said the cost of the project would be repayed "tenfold" to oil heating dealers who are Institute members.

Permaglas®

gives you

the ONLY line with so many VALID SELLING FEATURES

CERAMIC COATING

High temperature ceramic-coated heat exchangers stop corrosion, end the rusting that always goes with condensation from summer cooling.

EXCLUSIVE MODULATION

Modulation with the Magic-Heet Control adjusts the gas flame to suit heating needs, puts an end to "on-off" heating. (Gas models only)

BALANCED HEATING AND COOLING

Heating and cooling units designed for each other. Heating units have fan capacity for cooling. Quick, economical cooling additions later.

STRIKING APPEARANCE

Styled for out-in-the-open use. Dimensioned for space-conscious houses. Models and sizes for every heating and cooling application. Oil or gas.

ALL THIS IN A *COMPLETE* LINE

Through research A.O. Smith *... a better way*

A.O.Smith
CORPORATION

Permaglas Div., Kankakee, Ill.
International Div., Milwaukee, Wis.

***Permaglas* is going places ... are YOU aboard?**

A. O. SMITH CORPORATION
Permaglas Division, Kankakee, Illinois, Dept. FOH-1256

Gentlemen:
Please send me complete details about *Permaglas* Heating and Cooling.

Name.....Title.....
Company.....
Address.....
City.....Zone...State.....

fueloil & oilheat

Where is the new home Market?

	No. of Permits Issued	
	Aug.	8 Mo.
ALABAMA	1,043	8,091
Birmingham area	336	2,938
Mobile area	312	1,331
Montgomery area	83	910
Nonmetropolian areas	312	2,912
ARIZONA	1,029	8,336
Phoenix area	676	5,681
Nonmetropolian areas	353	2,655
ARKANSAS	246	2,180
CALIFORNIA	16,651	126,090
Fresno area	353	1,833
Los Angeles area	8,455	65,338
Sacramento area	558	4,039
San Bernardino area	1,477	11,561
San Diego area	993	8,390
San Franciso-Oakland	2,029	15,688
San Jose area	999	6,522
Stockton area	119	1,217
Nonmetropolitan areas	1,668	11,502
COLORADO	1,214	10,151
Denver area	793	6,551
Nonmetropolitan areas	421	3,600
CONNECTICUT	1,671	11,957
Bridgeport area	180	1,471
Hartford area	417	2,600
New Haven area	326	1,345
Nonmetropolitan areas	748	6,541
DELAWARE	437	2,232
Wilmington area	428	2,143
Nonmetropolitan areas	9	89
DISTRICT OF COLUMBIA		
Washington, D. C.	198	2,826
Maryland suburbs*	788	5,444
Virginia suburbs**	561	5,389
FLORIDA	4,873	37,693
Jacksonville area	374	2,587
Miami area	1,703	11,432
Orlando area	210	1,562
Tampa-St. Petersburg area	822	6,801
Nonmetropolitan areas	1,764	15,311
GEORGIA	1,623	12,157
Atlanta area	938	7,081
Augusta area		
Columbus area	228	1,364
Savannah area	138	1,040
Nonmetropolitan areas	319	2,672
IDAHO	153	903
ILLINOIS	5,004	40,421
Chicago area (Does not include Ind. suburbs)	4,229	33,191
Moline-Rock Island area	119	663
St. Louis area	69	943
Nonmetropolitan areas	587	5,624
INDIANA	1,531	11,454
Chicago suburbs	206	2,059
Fort Wayne area	48	419
Indianapolis area	592	3,707
South Bend area	136	809
Nonmetropolitan areas	549	4,460
IOWA	663	6,681
Cedar Rapids area	88	1,411
Des Moines area	116	959
Omaha suburbs	40	317
Nonmetropolitan areas	419	3,994

*Included inMaryland state total.

**Included in Virginia state total.

	No. of Permits Issued	
	Aug.	8 Mo.
KANSAS	744	7,316
Kansas City area	178	2,283
Wichita area	210	1,918
Topeka area	146	867
Nonmetropolitan areas	210	2,248
KENTUCKY	530	6,502
Cincinnati suburbs	42	342
Louisville area	318	4,212
Nonmetropolitan areas	170	1,948
LOUISIANA	1,149	8,281
Baton Rouge area	253	1,580
New Orleans area	523	3,418
Shreveport area	125	1,065
Nonmetropolitan areas	248	2,218
MAINE	142	865
MARYLAND	1,879	16,101
Baltimore area	792	8,287
Washington, D. C. suburbs	788	5,444
Nonmetropolitan areas	299	2,370
MASSACHUSETTS	2,163	15,696
Boston area	935	7,072
Springfield-Holyoke area	367	2,093
Worcester area	91	714
Nonmetropolitan areas	770	5,817
MICHIGAN	4,266	33,293
Detroit area	2,838	21,874
Flint area	319	2,372
Grand Rapids area	200	1,776
Nonmetropolitan areas	909	7,271
MINNESOTA	1,369	10,269
Minneapolis-St. Paul area	977	7,389
Nonmetropolitan areas	392	2,880
MISSISSIPPI	199	1,736
Jackson area	47	554
Nonmetropolitan areas	152	1,182
MISSOURI	1,680	11,100
Kansas City area	706	2,650
St. Louis area (Ill. suburbs listed under Ill.)	685	6,187
Nonmetropolitan areas	289	2,263
MONTANA	134	1,090
NEBRASKA	478	3,533
Lincoln area	103	771
Omaha area	273	1,942
Nonmetropolitan areas	102	820
NEVADA	97	1,650
NEW HAMPSHIRE	153	1,070
NEW JERSEY	2,678	23,998
Atlantic City area	90	737
New York City suburbs	1,539	12,550
Philadelphia suburbs	300	3,550
Nonmetropolitan areas	749	7,161
NEW MEXICO	448	3,320
NEW YORK	5,398	44,552
Albany, Schenectady, Troy	189	1,268
Buffalo area	820	6,659
New York City†	1,603	12,373
Suburbs of New York City	1,964	18,574
Rochester area	384	1,877
Nonmetropolitan areas	438	3,801
NORTH CAROLINA	758	7,674
Charlotte area	68	975
Greensboro-High Point area	103	1,239
Raleigh area	61	816
Nonmetropolitan areas	526	4,644

†Covers dwelling units actually started.

	No. of Permits Issued	
	Aug.	8 Mo.
NORTH DAKOTA	192	1,208
OHIO	4,829	34,871
Akron area	255	2,301
Cincinnati area	841	3,666
Cleveland area	995	8,066
Columbus area	610	4,562
Dayton area	413	4,423
Toledo area	285	2,049
Youngstown area	308	2,533
Nonmetropolitan areas	1,122	7,271
OKLAHOMA	592	5,218
Oklahoma City area	261	2,031
Tulsa area	86	842
Nonmetropolitan areas	245	2,345
OREGON	456	4,609
Portland area	177	2,105
Nonmetropolitan areas	279	2,504
PENNSYLVANIA	2,680	24,213
Allentown-Bethlehem area	143	1,449
Harrisburg area	103	922
Philadelphia area (See New Jersey for Jersey suburbs)	1,119	11,362
Pittsburgh area	829	6,377
Nonmetropolitan areas	486	4,103
RHODE ISLAND	295	1,958
Providence area	281	1,824
Nonmetropolitan areas	14	134
SOUTH CAROLINA	323	2,988
Charleston area	105	1,128
Nonmetropolitan areas	218	1,860
SOUTH DAKOTA	161	1,065
TENNESSEE	1,035	8,612
Chattanooga area	155	1,195
Knoxville area	239	1,827
Memphis area	282	2,644
Nashville area	200	1,698
Nonmetropolitan areas	159	1,248
TEXAS	4,845	39,109
Beaumont-Port Arthur area	182	1,275
Corpus Christi area	96	1,333
Dallas area	1,043	7,092
El Paso area	234	1,879
Fort Worth area	403	3,443
Houston area	655	5,275
San Antonio area	341	2,996
Nonmetropolitan areas	1,891	15,816
UTAH	467	4,528
Salt Lake City area	212	2,574
Nonmetropolitan areas	255	1,954
VERMONT	36	130
VIRGINIA	1,642	15,976
Portsmouth-Norfolk area	65	2,144
Richmond area	234	2,414
Washington, D. C. suburbs	561	5,389
Nonmetropolitan areas	782	6,029
WASHINGTON	1,315	10,681
Seattle area	631	5,155
Spokane area	192	1,238
Tacoma area	209	1,752
Nonmetropolitan areas	283	2,536
WEST VIRGINIA	416	2,902
Charleston area	98	819
Nonmetropolitan areas	318	2,083
WISCONSIN	1,634	14,057
Madison area	142	956
Milwaukee area	711	5,985
Nonmetropolitan areas	781	7,116
WYOMING	54	561

VALUES TO LOOK FOR IN 2-WAY RADIO . . .

LOOK FOR THE NEW transistorized microphone

AVAILABLE IN NEW RED-HEADED MODEL

- Transistors' basic attributes of minuteness, ruggedness and low power requirements make possible built-in pre-amplifier, permitting full interchangeability with conventional carbon microphone.
- Higher fidelity. Appreciable improvement in intelligibility, voice quality and reliability. Minimizes the possibility of noise pick-up in microphone cable.
- Designed to fit the hand . . . left or right, small or large, bare or gloved. Easy to grasp and hold. Slip-proof grip.
- Easy to use. Positive-action bar switch is of ample length, sturdy and convenient.
- Hangs easily. Clips into metal hanger as standard equipment. Rubber cup holder also available if desired.
- Ruggedized construction. To withstand shock, impact, heat, cold, humidity. Microphone element "packaged" for quick and easy replacement and maintenance.
- Distinctive appearance. Bright red mouthpiece and rugged black plastic case, rimmed with aluminum.
- Built to last. High-impact Bakelite case, guaranteed against breakage for 5 years. Switch, with self-wiping contacts, stands up in all kinds of weather.

RCA . . . world leader in radio . . . offers you quality equipment to meet your requirements . . . from mobile radio units, installed in trucks and service vehicles, to station radio for the dispatcher's office. Advanced engineering means greatest satisfaction . . . lowest maintenance. Expert service by RCA Service Company to assure peak performance.

RCA DISPATCHER 2-WAY RADIO TO DRIVER

The first low-priced transistorized microphone designed specifically for 2-way mobile communications ...and brought to you by RCA!

Available now for immediate delivery!

RCA

RADIO CORPORATION of AMERICA

COMMUNICATIONS PRODUCTS

CAMDEN, N.J.

Radio Corporation of America
Communications Products, Dept. M-252 Building 15-1, Camden, N. J.

☐ Please send me specifications and prices on RCA Transistorized Microphone.

☐ Please send me complete information on the use of 2-Way Radio in_____

_____

NAME_____ TITLE _____

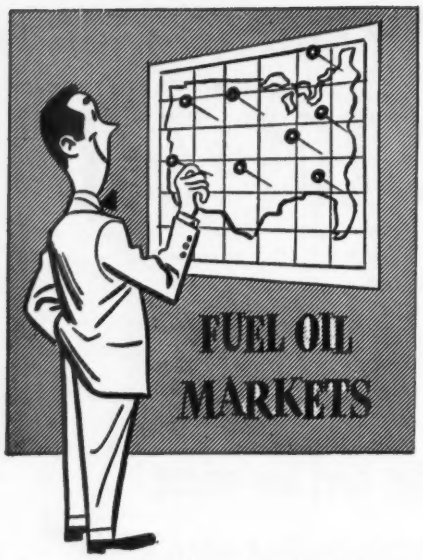
COMPANY_____

ADDRESS _____

CITY_____ ZONE____ STATE _____

☐ Have RCA Communications Specialist make a free RADIO SURVEY of my business.

fueloil & oilheat



No. 2 Heating Oil (Including No. 3 & PS200)

Price per gallon as of November 15, 1956

	Tank Car	Tank Wagon		Tank Car	Tank Wagon
Portland, Me.	11.1	14.9	Richmond	11.3	14.6
Boston	11.0	15.0	Charleston, S. C.	10.9	14.1
Providence	11.0	14.9	Chicago	11.2*	14.6
Springfield, Mass.	11.25	14.2	Detroit	11.75*	15.2
Hartford	11.25	14.2	Cleveland	11.6*	14.6
New Haven	10.9	14.6	Minneapolis	10.75	14.3
Syracuse	11.9	15.1	St. Louis	10.9*	14.4
Albany	11.1	14.7	Indianapolis	11.35*	15.1
New York	10.9	15.0	Milwaukee	12.5*	15.5
Newark	10.9	14.6	Des Moines	10.50	14.2
Philadelphia	10.9	14.4	San Francisco	10.65*	13.2
Harrisburg	10.9	15.0	Portland, Ore.	11.25*	13.8
Baltimore	10.9	14.7	Seattle	11.25*	13.9
Wilmington, N. C.	10.9	14.6	Spokane	13.65*	16.3
Washington	10.9	15.1	Los Angeles	10.15*	12.7

*Delivered.
Tank wagon prices shown are for maximum one-time delivery discounts.

THE price table this month, based on a field survey November 15, shows quite a lot of ups and downs, particularly at the Tank Wagon level compared with the same date last month.

The tank wagon price was reduced at Providence, Springfield, Hartford, Washington and Richmond. It was raised at Syracuse, Albany, New York, Wilmington and Des Moines. There were only two changes in the tank car price column: Portland and Boston where there was a drop.

There was considerable backing and filling during the past six weeks when some companies raised prices following the market leader, and others believed it was impractical because of the industry's overall stock position.

The primary stock levels as shown for November 9 are 7% above the corresponding date a year ago. This certainly does not appear excessive although some refiners believe that the very cold season of last year would just about offset the new crop of oilburners this year so that actual fuel consumption will be little or any higher.

We have no check on secondary storage, but there are considerable indications that fueloil distributors are loading up in the belief that prices may be affected by the disturbed political situation in the Middle East.

In fact, Frank Porter, API president, said in a press conference in Chicago that gasoline and crude oil price would probably not be affected by the Suez trouble, but fueloil would probably rise. Since that time residual prices are up, partly because of the greatly increased bunkering demand around South Africa, but there seems little reason for much change in distillates.

We have petroleum products to spare as explained in the Editorial Leaks department of this issue.

The Degree Day table shows most primary markets warmer than normal during October, but the two month total, if weighted by volume by cities would show a little colder than normal.

DEGREE DAY TABLES

ONE MONTH ONLY — October Normal	October 1955	October 1956	Percent Change*		LAST SEASON — Sept. through Oct. Normal	Sept. through Oct. 1955	Sept. through Oct. 1956	Percent Change*
443	387	464	+ 4.7	Albany AP	582	561	726	+24.7
110	138	49	—55.5	Atlanta AP	118	138	53	—55.1
278	224	217	—22.0	Baltimore AP	328	258	326	— 0.6
315	307	330	+ 4.8	Boston AP	392	392	504	+28.6
433	337	300	—30.7	Buffalo AP	555	474	518	— 6.7
350	301	153	—56.3	Chicago AP	440	345	239	—45.7
222	258	131	—41.0	Cincinnati CO	264	274	181	—31.4
340	320	198	—41.8	Cleveland AP	415	372	357	—14.0
53	54	14	—73.6	Dallas AP	53	54	14	—73.6
425	336	277	—34.9	Denver AP	545	462	343	—37.1
355	347	162	—54.4	Des Moines AP	454	417	265	—41.6
381	304	240	—37.0	Detroit AP	477	384	412	—13.6
394	292†	289	—26.7	Grand Rapids AP	499	400†	486	— 2.6
384	354	423	+10.2	Hartford AP	485	483	666	+37.3
617	532	608	— 1.5	Helena AP	937	862	824	—12.1
7	21	0	0	Houston AP	7	21	0	0
306	322	143	—53.3	Indianapolis AP	385	351	247	—35.9
240	182	63	—73.8	Kansas City AP	284	200	80	—71.8
41	58	34	—17.1	Los Angeles CO	58	64	34	—41.4
232	230	131	—43.5	Louisville AP	283	234	194	—31.5
428	373	287	—33.0	Milwaukee AP	562	477	475	—15.5
459	423	271	—41.0	Minneapolis AP	616	559	473	—23.2
5	17	0	0	New Orleans CO	5	17	0	0
263	182	216	—17.9	New York CO	302	212	318	+ 5.3
331	305	161	—51.4	Omaha AP	419	370	239	—43.0
219	156	177	—19.2	Philadelphia CO	252	172	284	+12.7
298	275	183	—38.6	Pittsburgh CO	354	305	310	—12.4
515	501	519	+ 0.8	Portland, Me. AP	714	747	826	+15.7
280	282	346	+23.6	Portland, Ore. CO	365	388	410	+12.3
381	326	394	+ 3.4	Providence AP	488	442	588	+20.5
233	228	202	—13.3	Roanoke, Va. AP	283	249	288	+ 1.8
202	215	68	—66.3	St. Louis CO	240	218	85	—64.6
381	374	399	+ 4.7	Salt Lake City AP	469	494	457	— 2.6
128	176	169	+32.0	San Francisco CO	238	357	260	+ 9.2
639	517	490	—23.3	Sault Ste. Marie AP	937	851	913	— 2.6
329	366	379	+15.2	Seattle CO	463	537	526	+13.6
387	347	256	—33.9	Toledo	489	439	446	— 8.8
237	182	188	—20.7	Washington AP	274	197	276	+ 0.7

*Compared with normal. †City Office

Distillate Fueloils

PRIMARY STOCKS*

(Thousands of Barrels)

East of Rockies

	Nov. 9 1956	Nov. 11 1955
East Coast	66,255	60,623
Midwest	49,439	45,980
Gulf Coast	28,510	28,144
Total	144,204	134,747

*American Petroleum Institute

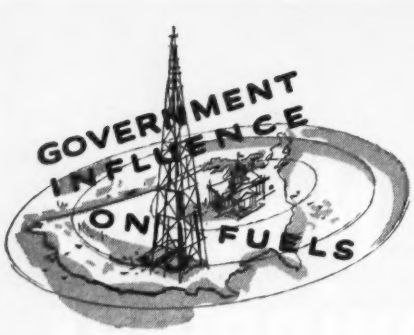
LENNOX uses Delavan Nozzles as Original Equipment

Delavan Nozzles are used as original equipment in many of the oil burners designed and manufactured by the Lennox Furnace Company. And the reason is simple. Top performance is demanded — and received. The famous Lennox Micro-Mix conversion model shown here contains remarkable economy, quietness and dependability — important qualities brought nearer to perfection with the help of Delavan Nozzles.

The first choice of more than 120 other leading oil burner and furnace manufacturers, Delavan Nozzles consistently deliver the same smooth, quiet, efficient fires whether used as original equipment or as replacements. Test them and you'll agree with the thousands of servicemen who won't use any other kind; there are no finer nozzles made. Order them for your replacement needs.

Write for Catalog No.148C

DELAVAN
Manufacturing Co.
WEST DES MOINES, IOWA



By
Milburn Petty

WASHINGTON—Neither government officials nor industry leaders foresee any need for oil rationing in the U. S. as a result of helping make up the deficit in Europe's supplies due to the Middle East situation.

But there may be higher prices coming, with offshore demand exerting an upward pressure on crude oil postings.

API President Porter, at Chicago, told newspapermen that, while he saw no need for rationing, "conceivably there might be price increases on heating oils and distillates."

He thought that a change was needed in refinery yields but doubted that the spread between distillate and gasoline was enough to encourage changed yields to make more distillate.

Porter said there would be a tendency to "firm up" crude, but he could not say that this would result in a price advance.

Top government officials also discount the possibility of rationing here, pointing out that Europe needs all tankers available to haul crude for its refineries. There is no tanker space for shipping products from here.

Imports Issue 'Moot' for Now

Shut-off of Middle East oil has made the imports issue moot—for the present, with prospective heavy demands for U. S. crude oil.

However, ODM Director Flemming intends to go ahead to spell out an imports policy as soon as it is practicable to determine availability of Middle East crude for U. S. import.

What that policy will be was clearly indicated at the recent imports hearings.

At the outset, Flemming announced that the Cabinet fuels policy committee had decided against any restrictions on residual imports—as predicted in this column—but would keep an eye on the situation (as a gesture toward the coal people). He also served notice that if non-exempt crude imports —mainly from the Middle East—continued at present levels they would injure domestic oil producers and he would have to certify the matter to the President for action.

At the hearings, producers went all-out in urging restrictions on all oil imports, including residual. They were chided by marketer representatives for forming a "political alliance" with coal interests.

Tanker Building Plans Upped

Worsening of the Middle East situation has doubled and redoubled plans for tanker building, with the government providing aid for shipyard expansion, at least. Goal may be 15,000,000 tons of super-tankers — 60,000 DWT and up — by 1965.

The government may also take a fresh look at proposals for a "Giant Inch" oil pipeline from the Gulf to the East Coast.

'End Use' Issue Taken to Court

Coal interests have asked the courts to require that the Federal Power Commission reverse itself and deny a construction permit to build a 1½ mile pipeline to supply natural gas to the Black Dog Generating Station of Northern States Power Co.

Opposing this "inferior use" of gas, the coal people said FPC "erred in failing to find that this is a case where conservation of natural gas should be controlling."

So, the issue of "end use" controls on gas—or oil—competing with coal is heading for a fight in the courts. Undoubtedly, it will be carried to the Supreme Court for final decision.

Originally, FPC had denied the certificate, apparently adopting the examiner's view that the relative abundance of coal was a factor.

NOJC May Seek Marketing Probe

National Oil Jobbers Council has decided to contact governmental and legislative officials (national, state and local) to discuss "certain practices"—not defined—in the oil industry and to ask for "a thorough investigation of the marketing segment of the petroleum industry, if deemed appropriate after such discussions." The door was left open to defer action if it appears that the "practices" are in the course of correction.

This action was taken at NOJC's annual meeting after Otis H. Ellis, counsel, advised he had "reached the limit of my ability to help solve your problem within the industry."

Clint Elliott, Arkansas, was re-elected president; Miles Mills, Des Moines, was named vice president.

Among other actions was a resolution urging that refiners "upgrade" heating oil and price it on a Btu basis competitive with gas.

Small Business Help Expected

As a result of the elections, with Republicans failing to capture Congress, the GOP can now be expected to try to outdo the Democrats in seeking votes among small businessmen.

One virtual certainty is tax relief for small corporations—say those with a net income of less than $50,000.

API to List Marketing Problems

API Marketing Committee is expected to approve—by mail ballot—the recommendation of a group, headed by S. H. Elliott, Ohio Standard, that a continuing committee be set up for "appraisal of current problems and establishment of targets or objectives at which the various committees might shoot."

IPAA Hears Plea for Unity

IPAA, national producer organization, heard Jake Hamon, API board chairman, plead with producers to take an interest in problems of other oil men.

"We must eliminate the difficulties that block the path to industry unity," Hamon said.

IPAA forecast that 1956 demand for distillate will be up 8.1%, with 1957 up 4.7%; residual, up 0.7% in 1956 and 1.4% in 1957. Kerosene demand will be 4.9% higher this year but drop 2% below 1956 in 1957.

Cleaver-Brooks presents . . .

A REVOLUTIONARY NEW DEVELOPMENT IN THE ART OF BURNING RESIDUAL OILS

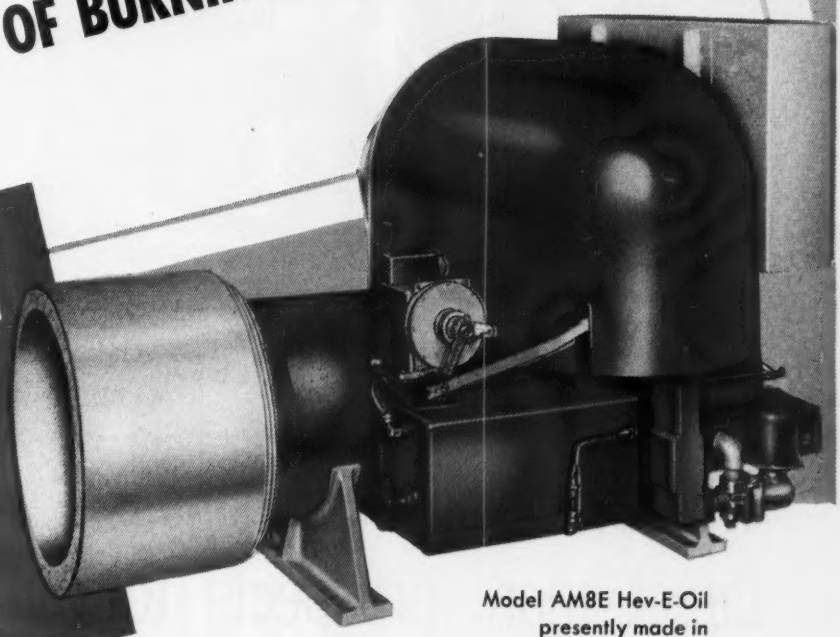
Hev-E-Oil

THE FIRST AIR-ATOMIZING

Burner

DESIGNED FOR

No. 6 Oil



Model AM8E Hev-E-Oil presently made in 90 gph size only.

. . . A TRIUMPH IN MODERN COMMERCIAL HEATING

NOW — for the first time in the industry — an air atomizing, gun-type burner designed for No. 6 or Bunker C oil. Previous methods of burning residual oils — with their inefficiencies and high maintenance — are now obsolete.

This great forward step in modern oil burning practice is another example of Cleaver-Brooks' leadership in burner research and engineering.

- No. 6 oil finely atomized — easily and completely burned.
- Burner equipped to bring hot oil to burner nozzle — ready for a perfect start at all times.
- Oil and air measured at all capacities — high CO_2 is maintained under all stack conditions.
- Straight electric ignition available.
- Pressurized lubrication increases service life.
- Fast installation — simple as a domestic burner.
- Latest type electronic controls are standard equipment — burner completely wired at factory.
- Burner completely fire-tested at factory.
- Low fire start — standard equipment.
- High-low modulation — standard equipment.
- Complete modulation available at slightly higher cost.
- Low and high fire easily set for most economical operation.
- Shape of flame can be adjusted for each particular installation.
- Post-purge insures no-drip, sure starting.
- Burner requires a minimum of service, a quality product made by Cleaver-Brooks — a leader in the development of combustion equipment.

Cleaver Brooks

DEALERS AND DISTRIBUTORS . . . write today — get the complete details on the new HEV-E-OIL Burner for No. 6 oil. CLEAVER-BROOKS COMPANY, Dept. P, 379 E. Keefe Ave., Milwaukee 12, Wisconsin.

HEV-E-OIL Burners . . . a quality product that builds your profit

Wherever you do business . . . direct more prospects to **you** through the **Yellow Pages**

FOR FUEL OIL DEALERS

New prospects . . . old customers . . . you make it easy for them to buy your products and services when you advertise in the Yellow Pages.

That's because your ads in the Yellow Pages are in all your prospects' homes and places of business at the time they are ready to buy.

So, be sure *you* reach more of your best prospects. Put your sales message in the Yellow Pages under profitable headings like OILS-FUEL, PETROLEUM PRODUCTS, FURNACES-HEATING, WATER HEATERS and others. Remember, the more you tell, the more you sell!

Find out how you can improve sales...*Wherever you are!* Call the Yellow Pages Representative at your local telephone business office today!

Advertisers of branded products are using this emblem to tell prospects how to find their dealers.

Place and Program for 1957 OHI Convention announced

ALL SESSIONS of the 1957 convention of the Oil-Heat Institute of America will be held at the Sheraton-Plaza Hotel, Boston, Mass., the week of June 2. Running concurrently, June 4-7, at the Hotel Statler, Boston, will be the 1957 biennial Eastern Exposition of Oilheating and Domestic Cooling, sponsored by the Oil Heat Institute of New England.

The program for the 35th annual OHI convention calls for all board, divisional and annual meetings to be held on Monday, June 3. On Tuesday, June 4, a breakfast will be held for the domestic section of the Manufacturers Division and meetings of the Engineering Committee, the Commercial-Industrial Section and other committees will take place.

The first of two round table dealer management conferences, covering all phases of oilheating equipment, will be held during the morning of June 5. An engineering-technical conference will also be held that morning, and a commercial-industrial symposium that afternoon. The second dealer management conference, covering heating oil and its distribution, will be held Thursday morning, June 6. The big annual OHI luncheon also is scheduled for June 6.

❖

Contract Awards for Month dip but year's Total soars

ALTHOUGH DOWN a fraction from September, 1955, future construction contract awards in the 37 eastern states totaled $2,024,794,000 for the 1956 month bringing the cumulative contract awards for the first nine months of this year to a record high, according to the report of F. W. Dodge Corp., construction news and market specialists.

September awards in the major construction categories were reported with gains or losses as follows: nonresidential at $775,869,000, 9% above September 1955; residential at $763,817,000, 4% above last year, and heavy engineering at $485,108,000 down 18%.

The cumulative contract awards for

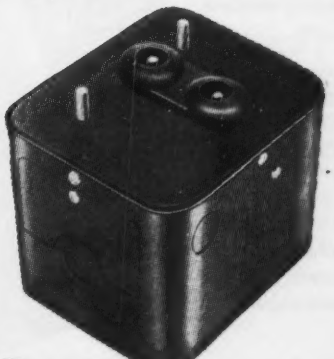
G-2

the simple formula behind

SUPER 'S

AMAZING SUCCESS

G-2 is Union's patented radio and TV shielding which effectively screens out static. G-2 is Union's positive method of encapsulation that locks out moisture . . . forever. G-2 is Quality, Dependability and Performance built into every SUPER Transformer. G-2 is those Plus factors that go into the manufacture of every Transformer to make them outperform, outlast ordinary transformers, so much so, that SUPER Ignition Transformers carry an exclusive 2 year guarantee against defects in workmanship and materials.



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Underwriters' Laboratory and Canadian Standard Approval

SUPER Your Best Buy in Ignition Transformers

UNION ELECTRIC and MANUFACTURING CO.

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BIG BIG VOLUME FOR YOU . . .

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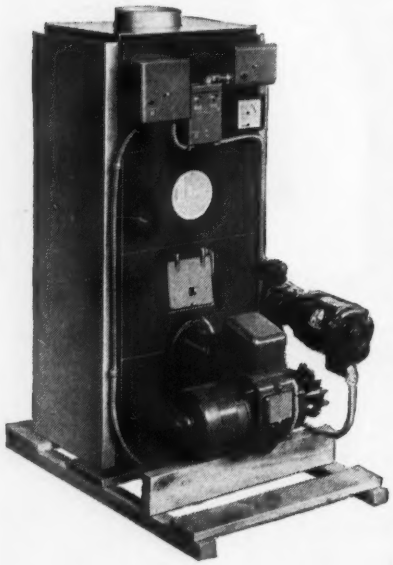
DUNKIRK Blue Circle

LEX-PAK PACKAGED OIL FIRED HOT WATER CAST IRON BOILERS



Here, in one single package . . . at one purchase price . . . is a completely assembled, fully equipped, automatic oil fired hot water boiler that saves days and dollars of uncontrollable "on site" boiler and burner assembly time and costs.

Lex-Pak Boilers are made of cast iron, the lifetime metal, exclusive honeycomb design combined with wet base construction provide more prime surfaces in a smaller, lighter boiler. Integrally cast fins, in offset arrangement, retain the hot gases of combustion until all usable heat is picked up by prime surfaces and quickly transferred to boiler water.

Provision is made for year 'round automatic hot water for domestic use by built in tankless heater coil that delivers a full 3 GPM flow of hot water. Saves extra cost of storage tank and separate fuel.

CUT INSTALLATION TIME FROM DAYS TO HOURS

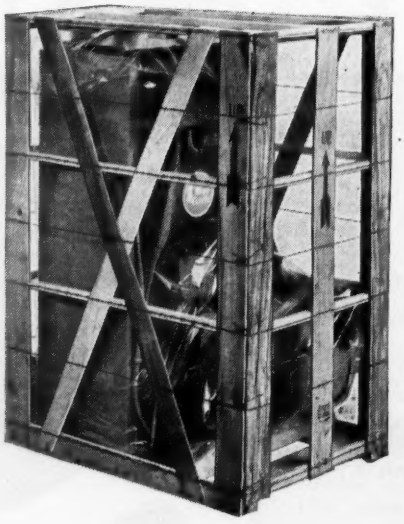
L.B.R

Reg. U.S. Pat. Off.

Lex-Pak Boilers eliminate the slow, costly physical activity of part-by-part boiler, burner and control assembly, confusing wiring diagrams, extra parts inventories, shortages, and interruptions that all add up to needless costs that cut deep into your profits.

Just position the Lex-Pak Boiler, hook up radiation and fuel piping, connect electrical source to clearly marked terminals, and it's ready for dependable, fully automatic operation.

Lex-Pak Boilers are shipped in sturdy, skid bottom type crates protected from dirt and moisture by plastic covering, assuring arrival in showroom condition.



Don't delay, write to factory for prices and catalogs.

DUNKIRK RADIATOR CORPORATION

DUNKIRK, NEW YORK

the first nine months of this year reached the new dollar volume record of $19,441,066,000, 7% above the corresponding 1955 period. By the major construction categories, the nine-month cumulative totals show: non-residential at $6,977,670,000, up 9%; residential at $8,094,637,000, up 2%; heavy engineering at $4,368,759,000, up 15%, all totals representing new dollar volume records.

❖

Home Builders Exposition to draw Throng of 30,000

ABOUT 30,000 people will view the 440 exhibits at the National Association of Home Builders annual exposition being held in Chicago January 20-24 concurrently with its annual convention, Leonard L. Frank, Hicksville, N. Y., convention chairman, has announced.

Top subjects on the convention agenda will be financing problems in home building and government housing policies.

❖

Burnham Corp. celebrates 100th Year in Business

THE BURNHAM CORPORATION of Irvington, N. Y., manufacturer of boilers, radiators and greenhouses, this year marks its 100th anniversary in business. In the course of its century, Burnham has come full circle. Started in 1856 by Frederick A. Lord, a carpenter who made a business of constructing small greenhouses for the amateur gardener, the Burnham Corp. again has found an extensive market for its small greenhouses for the amateur gardener. But they are hardly its first concern. Burnham's name now has become synonymous with boilers, radiators, cooling and large commercial greenhouses.

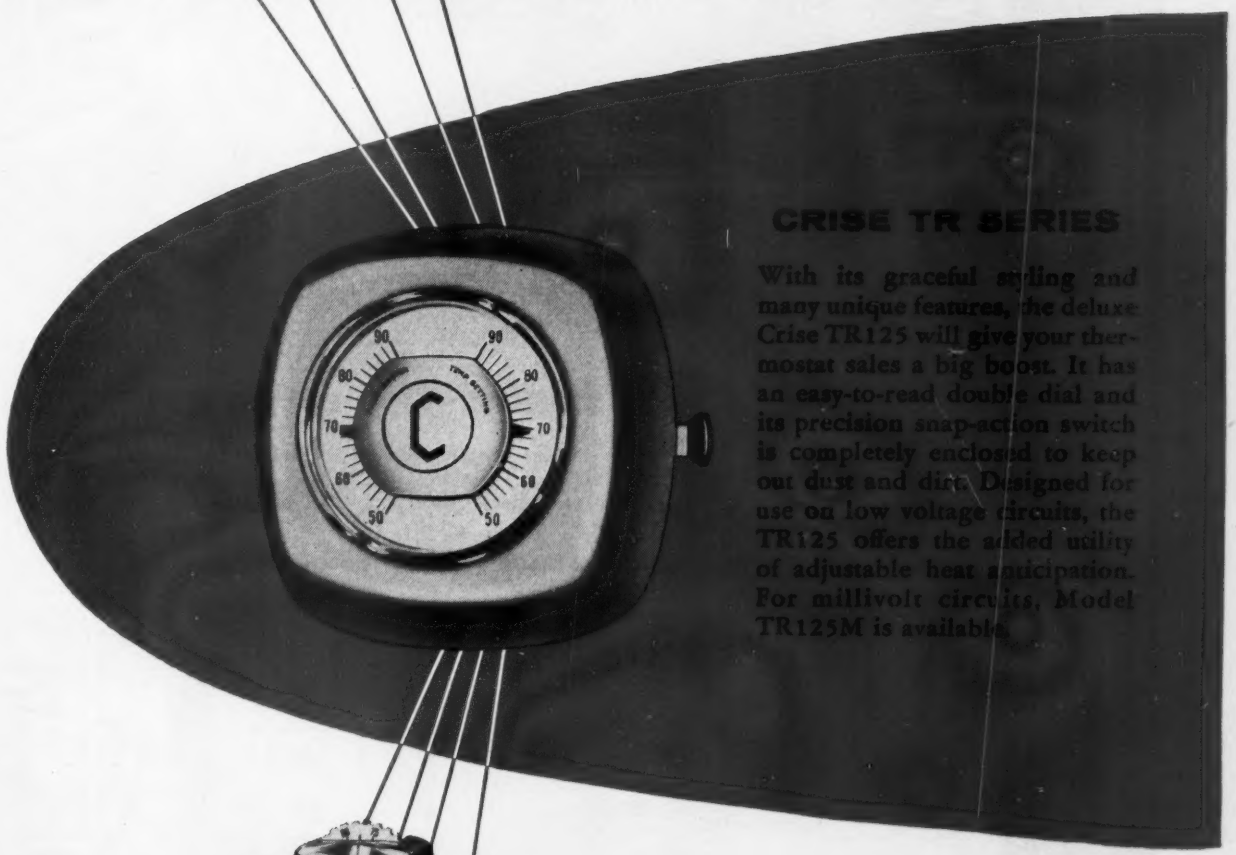
Back in the 19th Century, Lord's business kept getting bigger and bigger and so did his greenhouses. From the simple home structure, more elaborate structures for private estates lining the Hudson were designed and then large commercial buildings. As its reputation for greenhouses grew, so did the company's concern with the inadequate boilers being used to heat the buildings.

(*Continued on page 30*)

ACRO
CRISE

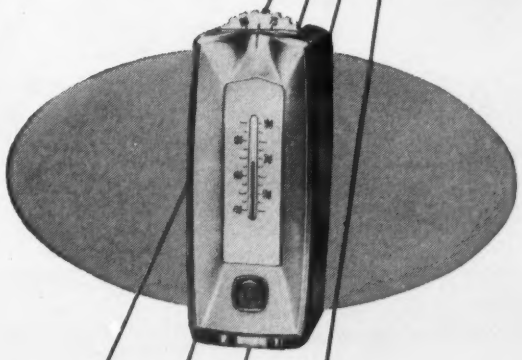
THERMOSTATS

NEW DESIGNS FOR 1957



CRISE TR SERIES

With its graceful styling and many unique features, the deluxe Crise TR125 will give your thermostat sales a big boost. It has an easy-to-read double dial and its precision snap-action switch is completely enclosed to keep out dust and dirt. Designed for use on low voltage circuits, the TR125 offers the added utility of adjustable heat anticipation. For millivolt circuits, Model TR125M is available.



CRISE DT SERIES

For installations requiring a less expensive yet reliable, sensitive thermostat, you can't beat the Crise DT Series. In this design, the case is bronze finished and the temperature setting dial is located at the top. Heat anticipation is fixed. Just specify amperage rating of primary control with which thermostat will be used.

If you're interested in more thermostat sales, it's good business to handle both the Crise TR and DT Series. You'll find they're built for simplified wiring—easy installation.

And, like all Crise Controls, they're priced to move fast and to give you a nice margin of profit. For complete details on these ultra-modern new designs, write us today.

ACRO MANUFACTURING COMPANY

CONTROLS DIVISION
Columbus 16, Ohio
Plants at Columbus and Hillsboro, Ohio

fueloil & oilheat

For the latest in YEAR 'ROUND COMFORT CONDITIONING

BELL & GOSSETT COMPANY

Dept. EP-7, Morton Grove, Illinois

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B&G *Hydro-Flo** SYSTEM

FOR HEATING AND COOLING WITH WATER

The B&G Booster

Engineered for compactness, *silent* operation and years of service, this electric pump circulates water for heating the house in winter, cooling it in summer and for snow melting panels. The B & G Booster has a solid reputation for dependability... *that's why over 2,000,000 have been sold to date!*

Here is the feature which lifts any home out of the commonplace class... adds value far beyond the actual cost. No other type of system can offer so many possibilities for more comfortable, more convenient living.

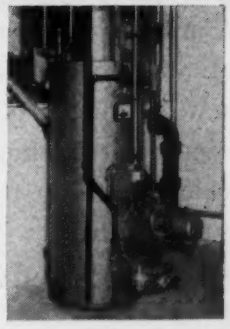
The B & G *Hydro-Flo* System employs *circulated water* to provide the advantages only water can give. It can be installed initially as a forced hot water heating system, with all the benefits of controlled *radiant* warmth, plus a year'round supply of low-cost hot faucet water. It can be inexpensively zoned to permit different temperatures in different parts of the house.

Other *Hydro-Flo* features can be included, either when building or at any time thereafter. Summer cooling, for example, using chilled water in a choice of several ways. Or snow melting pipe coils under driveway and sidewalk, using the regular boiler to supply heat.

All the facts are given in a new color-illustrated booklet. Send for your copy—see why more and more builders are turning to the B & G *Hydro-Flo* system.

In this home development, 300 homes were sold over one week-end. Not the least of the factors which influenced this rapid sale is the fact that these homes are equipped with baseboard forced hot water systems using B & G *Hydro-Flo* equipment.

This modest home is heated with a B & G *Hydro-Flo* System, with baseboard panels as the heat distributors. Note the sign—the builder is capitalizing on the sales-making appeal of controlled radiant heating, plus a year 'round supply of hot faucet water.



Typical space-saving B&G *Hydro-Flo* System heating plant. The boiler has a built-in water heater.

ONLY WATER OFFERS *ALL FIVE!*

Heating • Cooling • Hot Faucet Water
• Snow Melting • Zoning

BELL & GOSSETT COMPANY, Dept. EP-7, Morton Grove, Illinois
Please send your free booklet on the B&G Hydro-Flo System.

NAME_____

ADDRESS_____

CITY_____ ZONE_____ STATE_____

fueloil & oilheat

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(formerly the International Heating & Ventilating Exposition)

INTERNATIONAL AMPHITHEATRE—CHICAGO

FEBRUARY 25—MARCH 1, 1957

Under the auspices of the American Society of Heating and Air-Conditioning Engineers, and in conjunction with their 63rd annual meeting.

ALL plant engineers and operating men should keep posted on progress by learning about the newest developments in heating, ventilating, cooling and air conditioning equipment. At Chicago, you will see thousands of new and improved products that may help to improve efficiency in your plant. Here you can talk over your problems with the technical representatives of more than 450 leading manufacturers. You owe it to yourself *and* your employer to see what's new at the biggest industrial equipment exposition of its type in the world.

Write for advance registration to:

13th INTERNATIONAL HEATING & AIR-CONDITIONING EXPOSITION
480 Lexington Avenue, New York 17, N.Y.

Management: International Exposition Co.

3554

(*Continued from page 26*)

In 1873, the Lord & Burnham Co. —for William Burnham had become a partner the year before—put on the market the first boiler of its own design, a cast iron sectional. While far more efficient than those then being marketed, this boiler had its faults so experimentation continued for a better boiler, a research program that still continues to produce better products.

Today the line of the company headed by Burnham Bowden as president has been expanded to include Hide-Away cooling systems as well as Pace-King and Pace-Pak boilers and other products for hot water and steam heating systems, sized and suited to small and large homes, every type of commercial, industrial and institutional structure. Still in the picture, of course, but now of lightweight aluminum is the greenhouse for the amateur gardener.

❖

Dealers find night Calls increase oilheating Sales

MOST OF THE oilheating sales in northern New Jersey and metropolitan New York area are closed at night according to a recent survey made by FUELOIL & OIL-HEAT among dealers in the area.

The dealers estimate that 70% of their equipment sales are clinched at night in the homes of their prospects. About 94% of the dealers do most of their selling in the evening and the same percentage finds that this practice increases their business.

Nine out of ten dealers themselves make night calls and 95% of them urge their salesmen to hit the twilight trail.

More than half of the sales are approved by both husband and wife with the husband making the final decision in a third of the sales, and the wife giving the okay 16% of the time.

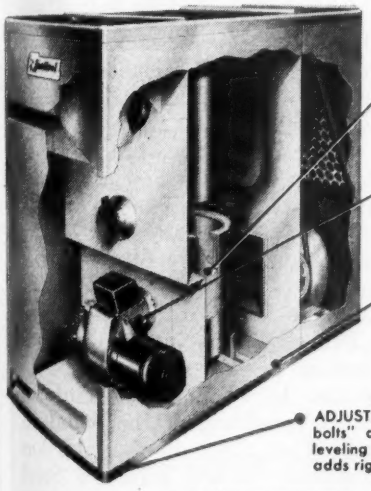
The oilheating dealers in the survey broke down their equipment sales into the following ratios: Oilfired boilers, 52%; Conversions, 33% and Furnaces, 15%.

Nearly three out of ten dealers surveyed are doing some cooling.

the Quiet

oil-fired winter conditioners come from ®Janitrol

The "inside story" on Janitrol quality leadership



- JANITROL "HEATING HEART"—Exclusive new design fabricated from 14-gauge steel, all-welded construction. Quieter, more durable, easily accessible.
- JET-OMIZER HI-PRESSURE BURNER—Super powerful to thoroughly atomize fuel and mix it uniformly with air for clean, complete combustion.
- COMPACT, INSULATED CABINET — Combines smart styling with compact design. Insulated to minimize heat transmission and insure greater quietness of operation. Lustrous blue-gray baked enamel finish.
- ADJUSTABLE LEVELING BOLTS—"Adjusta-bolts" at corners of cabinet base simplify leveling the conditioner. Solid steel base plate adds rigidity, excludes dust and dirt.
- FACTORY ASSEMBLY—All sizes factory assembled; require only addition of burner, refractories and controls at the job. Saves installation time.
- FULLY AUTOMATIC CONTROL SYSTEM—Provides more uniform heating, greatest economy, with maximum safety for all conditions.
- PREFABRICATED WIRING HARNESS—Simplifies installation, keeps profits up.

YEAR 'ROUND AIR CONDITIONING

Adaptable for summer cooling with Janitrol's great new air-cooled equipment, which may be installed at same time as furnace or at any later date. Janitrol water-cooled vertical cooling conditioners also are available.

®Janitrol
HEATING AND AIR-CONDITIONING
DIVISION

SURFACE COMBUSTION CORPORATION, Columbus 16, Ohio
In Canada: Moffat Heating and Air Conditioning Division of Moffat's, Ltd., Toronto 15.

See to it that your customers get gentle, *quiet* warmth with thrifty fuel economy. Do away with profit-draining service call-backs and complaints. Recommend and install new, quality-built Janitrol oil-fired conditioners. They're peak-engineered to new standards of quiet performance. Gone is the shake, rattle and roar you've often experienced in conventional oil-conditioner operation. These new Janitrols put the damper on noise so effectively you'll scarcely believe your ears. What's more, they're compact and handsomely styled—designed for time-saving installation and easy conversion to gas. Your Janitrol representative has complete details for you concerning the new Janitrol oil-fired conditioner line, including the low-boy model shown here. Ask him to call soon. Or, mail us the coupon.

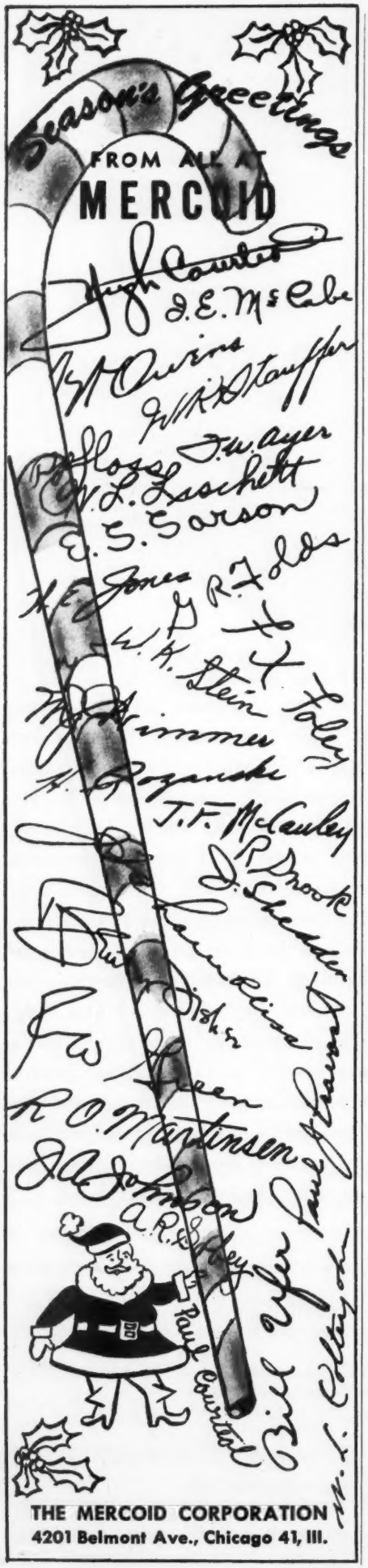
Janitrol Heating & Air Conditioning Division
Surface Combustion Corporation, Columbus 16, Ohio

Gentlemen:
Please send me complete information about new Janitrol oil-fired winter conditioners and profit-opportunities for dealers.

NAME_____

COMPANY_____

CITY_____ STATE_____



API annual Meeting features four Days of practical Sessions

A TOTAL OF 15 group and general sessions, plus 150 to 160 committee sessions, highlighted the four-day 36th annual meeting of the American Petroleum Institute, November 12 to 15. The Conrad Hilton Hotel in Chicago was general headquarters for the big meeting, with two other hotels utilized for some Division meetings. Transportation groups, for example, met in the Palmer House; Marketing meetings took place in the Sheraton-Blackstone.

Of specific interest to the oilheating industry was the November 12 meeting of the Fuel Oil Committee, Division of Marketing, held at the Blackstone and featuring three speakers who told about what they see in store for the industry. Reproduction of their talks appear in this issue's feature section under the general title, "Oilheating's future Growth." (Page 44.)

The session was unique in that the program was put together to enable a refiner, an oilburner manufacturer and a fueloil distributor to foretell what he felt would happen in the next five years and to explain the help he thought was needed from the other two segments of industry to achieve that objective.

Upwards of 7,000 oil men from all sections of the nation and from foreign countries attended the meeting, whose sessions covered such diverse subjects as public relations, production, marketing, fundamental research, taxes, petroleum statistics, safety and fire protection.

A symposium on the first day of the meeting covered the subject of long-range weather forecasting. The seven papers presented included such topics as the need for degree-day forecasting for the petroleum industry; basing fuel supply planning on weather information; 30-day outlooks and reliability in long-range forecasting. More complete details will appear in a later issue.

During a session on petroleum statistics E. T. Knight, The Atlantic Refining Co., Philadelphia, Pa., in a paper, "The 1957 Outlook for the petroleum Industry," predicted that "there will be no spectacular change in general business in 1957 and that it will compare reasonably well with 1956." Domestic demand probably will average 9,265,000 barrels a day in 1957, he continued, an increase of 4.1% or 366,000 barrels daily over 1956.

The table accompanying contains the estimates given by Knight for 1956 and 1957 demand, along with percentage increases, for the principal

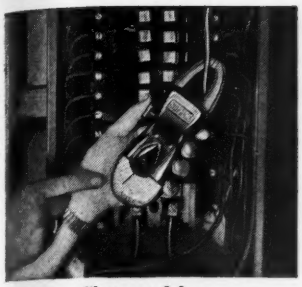
API Gold Medal

THE GOLD MEDAL for Distinguished Achievement, awarded annually by the American Petroleum Institute, was presented to J. Frank Drake, former president and retired chairman of the board of Gulf Oil Corp., Pittsburgh, Pa., November 14 during the API's 36th annual meeting in Chicago.

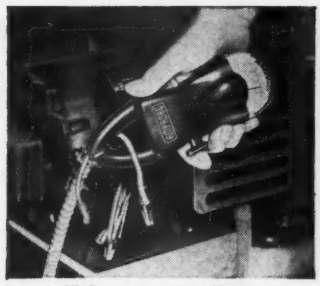
Drake retired in April 1955, as chairman of Gulf's executive committee, after having served in that capacity for five years, and 17 years as president. He continues as a member of the Gulf board and of its finance committee.

Drake joined Gulf in 1919 as assistant to the president, W. L. Mellon. In 1923, he left Gulf to become president of the Standard Steel Car Co., another Mellon Company. When Standard Steel and its subsidiaries were merged with the Pullman Companies in 1930, Drake was elected chairman of the Board of Pullman, Inc. In 1931, he resigned to return to Gulf as president.

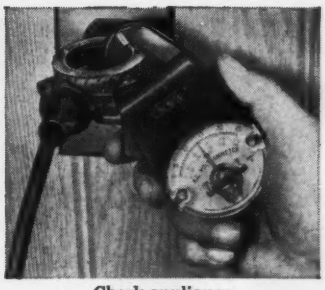
A native New Englander, Drake is a graduate of Dartmouth College which awarded him an honorary degree of Doctor of Laws in 1952. During his long career in petroleum, he has been a member of the board of the American Petroleum Institute and has served with the Petroleum Industry War Council, the National Petroleum Council and the National Industrial Conference Board of which he was chairman from 1945 to 1947.



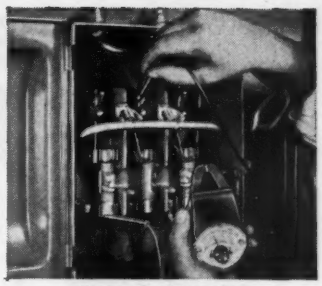
Show need for additional service



Take current readings without shutdows



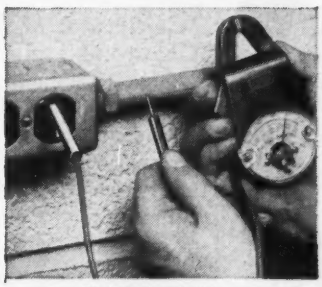
Check appliance current at plug



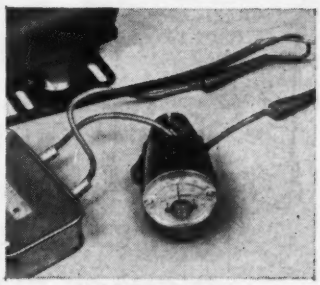
Instantly determine if fuses are good

Know if load is balanced

13 different jobs that call for an AMPROBE

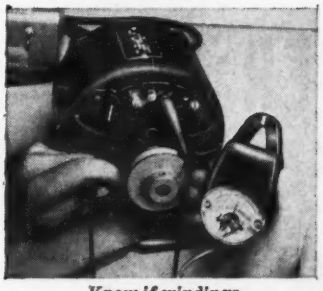


Determine hot leg of receptacle

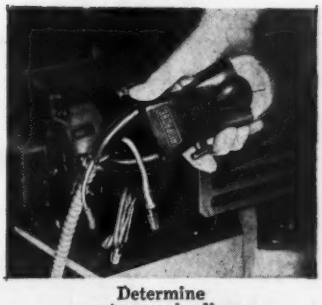


Check capacity of motor capacitors

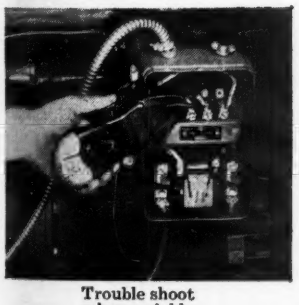
Use for periodic motor checks



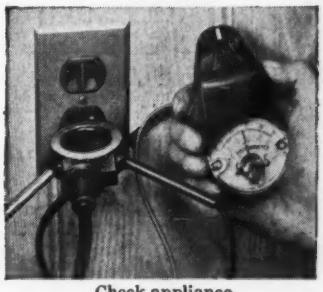
Know if windings are grounded



Determine motor overloading



Trouble shoot relays quickly



Check appliance voltage at receptacle

Use for lighting circuit surveys

Don't guess at it. *Amprobe it.*

You'll save time, money, and costly mistakes on the job by reaching for your Amprobe. It's not just an ammeter, not just a voltage-tester. It's both! Amprobe measures voltage and current—instantly, accurately, safely—without shutting down equipment. And there's a model that fits your needs perfectly.

Expensive? Not all all. You can select an Amprobe for as little as $19.85—just a few dollars more than an ordinary voltage-tester. See your electrical wholesaler today.

Amprobe is a division of Pyramid Instrument Corp., 630 Merrick Road, Lynbrook, New York, manufacturer of REMCON simplified low-voltage switching devices.

AMPROBE

13 models to make your work easier, faster, surer

There's a model for every job, every budget: from 10 amps and 250 volts to 1200 amps and 600 volts AC; from $19.85 to $67.50.

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Filter Unit

SOOTMASTER Filter Unit, designed for easy installation in container of G. E. and Premier Furnace Cleaners, eliminates the outside bag. Gives double protection against leaks and blow-outs. THROW-AWAY BAG provides a safe and easy method of dirt disposal.

$19.75 Complete with 10 throw-away bags and quick-release tie-cord.

- *Order from your jobber*
- *Jobbers' inquiries invited*

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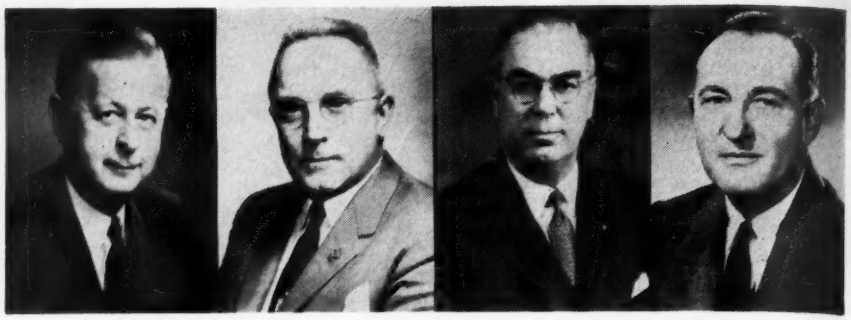

"Certificates of Appreciation" *were awarded at the API annual meeting in Chicago to, l. to r. above, Arthur J. De Blois, De Blois Oil Co., Pawtucket, R. I.; Dwight T. Colley, The Atlantic Refining Co., Philadelphia, Pa.; Frank R. Markley, Sun Oil Co., Philadelphia, and J. G. Jordan, Shell Oil Co., N. Y., in recognition of their services to the industry. Also to, l. to r. below, Roy B. Glass, Socony Mobil Oil Co., Inc., Kansas City, Mo.; Conger Reynolds, formerly with Standard Oil Co. (Indiana), Chicago; D. R. McCallum, Sinclair Refining Co., Denver, Colo., and Robert A. Douglass, Ethyl Corp., Tulsa, Okla.*

categories of petroleum product, along with a forecast of 1962 demand.

On heating oil demand, Knight said: "The forecast of a modest increase in the use of distillate heating oils reflects the fact that the colder than normal winter during 1956 resulted in average heating oil requirements per unit somewhat higher than can be expected in 1957. However, it is our expectation that the average number of units in operation during the coming year will be 5% greater than in 1956 and consumption of distillate fuels will be 3.1% greater."

"It is our estimate that by 1962 domestic demand will approximate 11,110,000 barrels a day, an increase of 20% over the forecast for 1957," Knight concluded. "Domestic demand for motor fuel should be at least 18% higher and distillate fuels 23.4% above 1957 forecasts."

All in all, he summarized that total demand in 1957 should be at least 4% greater than in 1956 and between 1957 and 1962 demand will increase at an average annual rate of 3%.

Demand for Petroleum Products

	1956		1957		1962	
	Quantity 1,000 B/D	% Increase Over 1955	Quantity 1,000 B/D	% Increase Over 1956	Quantity 1,000 B/D	% Increase Over 1957
Domestic Demand						
Motor Fuel	3,804	5.0	3,967	4.3	4,687	18.0
Kerosene	331	3.3	325	— 1.7	330	1.5
Distillate Fuels	1,734	8.9	1,803	3.9	2,225	23.4
Residual Fuels	1,555	1.8	1,575	1.3	1,625	3.2
Liquefied Petroleum Gas	443	13.3	482	8.7	700	45.0
Other	1,032	7.0	1,113	8.8	1,533	25.0
Total Domestic	8,899	5.8	9,265	4.1	11,100	20.0
Exports						
Crude Oil	29	— 9.2	30	3.5	25	—16.6
Products	299	—10.8	303	0.8	225	—26.0
Total Exports	328	—10.0	333	1.3	250	—25.0
Total Demand	9,227	5.1	9,598	4.0	11,350	18.3

OILHEATING MARKET REPORTS*

Omaha, Neb.

ALTHOUGH facing cheap competitive fuel conditions for probably 20 years, Omaha has remained an effective oilheating market and today accounts for a very significant fueloil volume.

For the purposes of this study we will use the whole of Douglas County, Nebraska, since that gives us an opportunity to make some useful comparisons with earlier statistics.

The earliest official record of residential oilheating in Douglas County was the OPA rations as published in the summer of 1945. At that time there were 9,103 central heating oilburners. At the time of the 1950 Census of Housing, which was based on dwelling units rather than individual homes we found this division between the principal fuels used by central heating:

Coal	29,490
Wood	205
Oil	16,055
Gas	17,545

Thus we see that while gas was in the top spot for automatic fuels due to its low cost, oilheating had none-the-less nearly doubled its number of users in the 5 years between 1945 and 1950.

At the time of the Omaha meeting with fueloil distributors to prepare this market analysis on July 20 it was estimated that there were approximately 29,000 central heating oilburners in the market. Central heating gas burners were estimated by the same group to be approximately 30,000 on the same date. Oil, then, has continued to hold its market ratio against gas through the six years from 1950 to 1956, for we see that oilheating increased 81% in the six years while gas picked up by 71%. The number of oilburners presently in use includes both the strictly residential application and the small commercial users where the same type of burner and fuel are used.

Central heating with coal appears to have declined in the past six years from the 1950 census figure of 29,490 to approximately 13,400.

Competitive Fuels and Costs

Typical bituminous coal in the hand fired sizes run around $17 a ton and stoker size around $14. These fuels have about 13,000 Btu per pound. That would indicate that the cost per therm (100,000 Btu) ranges from 5.4¢ to 6.5¢.

Natural gas for heating varies in cost with the size of the dwelling and with family habits, such as the nature of the fuel used for cooking, water heating or other domestic purposes. The costs range from 6¢ to 9¢ per therm. A typical residential user having a gas kitchen range and water heater would find his heating cost to be about 6.9¢ per therm.

No. 2 fueloil at 13.4¢ a gallon when this study was made is equivalent to 9.6¢ per therm. Thus, oil is the premium fuel and must depend on its advantages other than cost if it is to maintain a healthy growth rate.

Fueloil Distribution

During the past heating season (1955-56), the average central heating customer in Omaha used 1,238 gallons of fueloil. This average figure includes not only the typical residential user but also the small commercial account like the corner store or filling station where the same type of burner and fueloil are used.

If we multiply this figure by the estimated 29,000 central heating customers the total gallonage used would be 35,902,000.

It is important to notice that about 20% of this product is actually No. 1 fueloil used in central heating plants and the balance is No. 2. For the purpose of having a uniform concept of the market, we could say that 30 million gallons of No. 2 oil and 7 million gallons of No. 1 use for central heating would be a practical basis.

As distillate heating oil comes into the market about 77% of it is supplied by the major or integrated oil companies and the other 23% either comes from brokers or small Midwest refiners.

At the retail level we find that only 19% of furnace oil is sold direct to the consumer by the major oil companies and the remaining 81% is sold to the user by independent fueloil marketers.

There is very little tendency to supply fueloil "under the fill." Only an estimated 5% of the marketers load their trucks at another company's bulkplant although it is interesting to notice that these companies have about 7% of the gallonage.

An estimated 58% of furnace oil users are served through automatic delivery systems; this compares with an average of 70% among the 8 Midwest markets previously studied and with 77% for the industry as a whole east of the Rockies. Again we find that Omaha furnace oil customers have their tanks equipped with VENTALARM type fill signals to the extent of 7%. Our previous Midwest average was 31% of customers and our east of the Rockies average is 55%.

Approximately 22% of the furnace oil customers pay their bills through monthly budget programs. A previous Midwestern experience in eight city markets found 16% paying in this way and the entire east of the Rockies average is 17%.

In the Omaha market 72% of the companies selling fueloil also sell gasoline and other automotive products. Our previous Midwest average was 56% and our east of the Rockies average is only 27%. Next we learn that 10% of the fueloil companies in Omaha also sell coal which compares with 18% in the Midwest generally and 22% in the full territory east of the Rockies.

In the sale of oilheating equipment Omaha is far above its Midwest neighbors. We find 56% of the fueloil distributors here selling oilburners against 20% for the Midwest generally and 53% in the three dozen markets studied east of the Rockies.

Market Concentration

Just about half of the furnace oil sold in Omaha is handled by four companies. These companies each operate 10 or more fueloil trucks and while their total number of trucks is only 46% of those in the market they will average a little higher annual output per truck than the smaller companies.

The market as a whole has 25 compines selling fueloil to the user. These companies have a total of 106 fueloil trucks. The annual output per truck thus indicated is a little below the average of most markets so we would understand that these units get part-time use with other products.

Oilheating equipment Sales

During 1955 approximately 46% of the new oilheating installations in the market were made by oil companies; another 38% by heating companies and the remaining 16% by oilburner service organizations not in the fueloil business.

Oilburner Service

An estimated 87% of oilburner service in the Omaha market is rendered by oil companies and the remaining 13% is about equally shared by general heating companies and by special burner service companies or individuals not identified with the oil business.

Burner service when supplied by oil men is theoretically free. It definitely is free for emergency calls and the annual tune-ups where no parts are required.

The oilmen at the meeting did not know what the average customer actually spends in the year for parts since of course many of them spend nothing. The guesses within the group pointed to something like $4 to $6 if spread over all customers. It costs the oilmen an average of .44¢ per gallon of oil sold to render the so-called free service to all customers.

It seems that about 6% of the oilheating users in Omaha have annual service contracts. The charges, pretty generally, are $25 with parts and $15 without.

Annual clean-ups and tune-ups are received by the heating plants of 82% of the users. This is an extraordinarily high ratio but then most of these operations are free. The typical minimum charge made by non-oil companies for an individual call is $4.50.

Advertising Promotion

The major oil companies have done an advertising job on their own brands of fueloil to but a very moderate degree. Our group estimates that 93% of the emphasis in such advertising has been on the brand with the small balance devoted to blessing oil heat. Among the independent marketers some seven or eight companies are credited with doing a good job in community advertising of fueloil and oilheat.

The Oil Heat Institute of Omaha in October, 1955, proposed to its membership that a campaign be started to raise funds for an advertising program. However, the program did not get underway. T. W. Summers who is president of the local OHI chapter then asked Oilheating Market Reports to make a survey and recommend wider participation.

Trucks Delivering No. 2 Fueloil	*No. of Companies Operating Within Classification*	*Percent of Companies to Total*	*Total Trucks Represented*	*Percent of Total Number of Trucks*
10 or more	4	16	49	46
6 to 9	2	8	14	13
3 to 5	5	20	22	21
1 or 2	14	56	21	20
Totals	25	100	106	100

*Copyright 1956. Oilheating Market Reports, 270 Park Ave., New York, N. Y.

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HEATING • COOLING • YEAR 'ROUND UNITS

An important meaning of *capitalize* is "to invest for profit."

With Luxaire, you invest *less* for *more* profit.

It stands to reason.

The complete Luxaire line permits you to select the right size and type of unit, the right unit for your application. This reduces your installation cost, saves you time and money.

Luxaire is a top seller, manufactured in quantity with highest standards of quality. You can make a higher margin with Luxaire, because every unit is a deluxe unit with a down-to-earth price to you.

With Luxaire, you invest *less* for *more* profit.

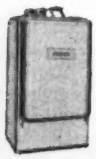
If you are looking for a way to increase your business, and your profit, then look to Luxaire.

See your Luxaire jobber, today!

1 EXCELLENT PRODUCT

2 COMPETITIVE PRICE

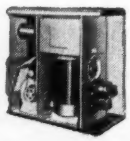
3 COMPLETE LINE



Air or Water Cooled 2 or 3 Ton Basement-Utility Year 'Round A. C. Unit Burns Gas or Oil

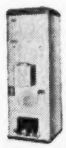
Air or Water Cooled 2 or 3 Ton Counterflow Year 'Round A. C. Unit Burns Gas or Oil

Water Cooled 5 Ton Year 'Round A. C. Unit Burns Gas or Oil

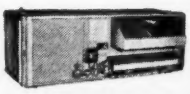


Basement Type Winter A. C. Unit Burns Gas or Oil

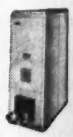
Utility Room Type Winter A. C. Unit Burns Gas or Oil



Counterflow Winter A. C. Unit Burns Gas or Oil



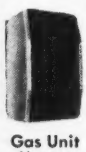
Horizontal Furnace 4 Gas Sizes 4 Oil Sizes



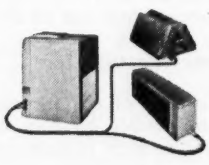
Gravity Furnace Burns Gas or Oil

Gas Conversion Burner

Oil Conversion Burner



Gas Unit Heater



Air Cooled Add-On 2, 3 or 5 Ton Summer A. C. Unit Compressor-Condenser Unit with Matching "V"-type or "Flat"-type Cooling Coil

Water Cooled Add-On 3 or 5 Ton Summer A. C. Unit

THE Luxaire C. A. OLSEN MANUFACTURING COMPANY • • ELYRIA, OHIO

HEATING & AIR CONDITIONING UNITS

Shell oilburner Laboratory

Run-through of Shell's oilheat Accomplishments since 1930; Ideas on today's Projects

by
J. W. Schulz

BILL SULLIVAN of Shell admits he preaches to the oilheating industry.

Assisting in the preparation of this article he said this:

"As you know, we are continually preaching the gospel of better mixing of the air and oil—as the best means of achieving good combustion.

"By that I mean high CO_2, 10% or higher, and a smokeless flame—from a cold start!

"The more mixing that is done by the burner itself, the less dependent you are on the size and shape of the firebox, and the easier it is for the serviceman to achieve excellent results in the field. Remember, he has all shapes and sizes of furnaces and boilers to deal with.

"The installation of a poorly designed burner puts two strikes against the serviceman; no matter how conscientious his efforts, he never will be able to overcome the basic weaknesses of the burner.

"A poorly designed burner amplifies the defects or weaknesses of the fueloil, in instances involving fueloil that's not practically perfect. A poorly designed burner also amplifies any shortcomings in the other components that make up the oilheating system. But a correctly designed and correctly installed oilburner offsets weaknesses in the fueloil and in the other components that form the oilheating system.

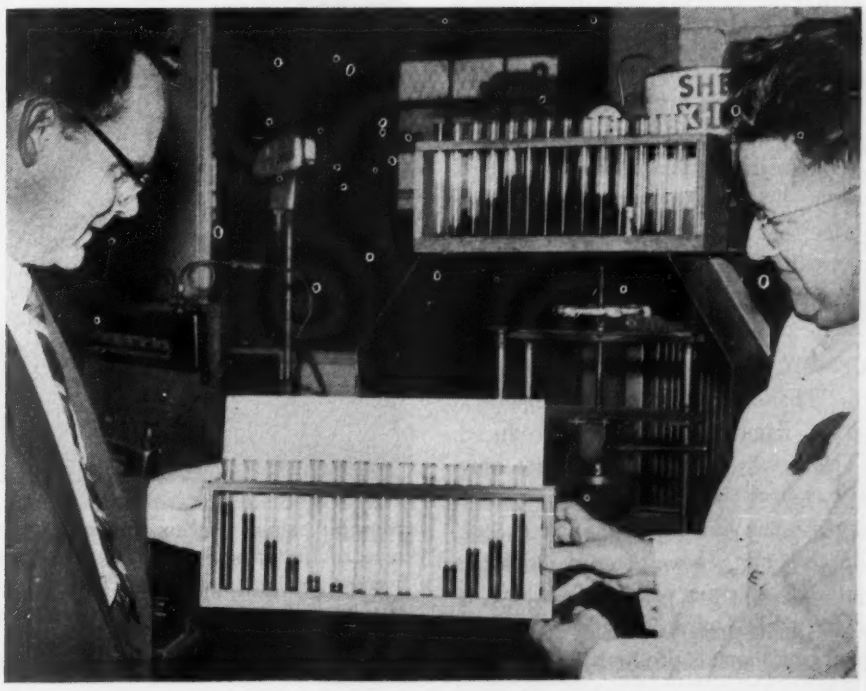
"We of Shell know that from the standpoints of fuel company economy and clean burning the design of the burner's air-handling parts is by far the most important consideration in the selection of a burner. Yet this gets little consideration from the average buyer of an oilburner.

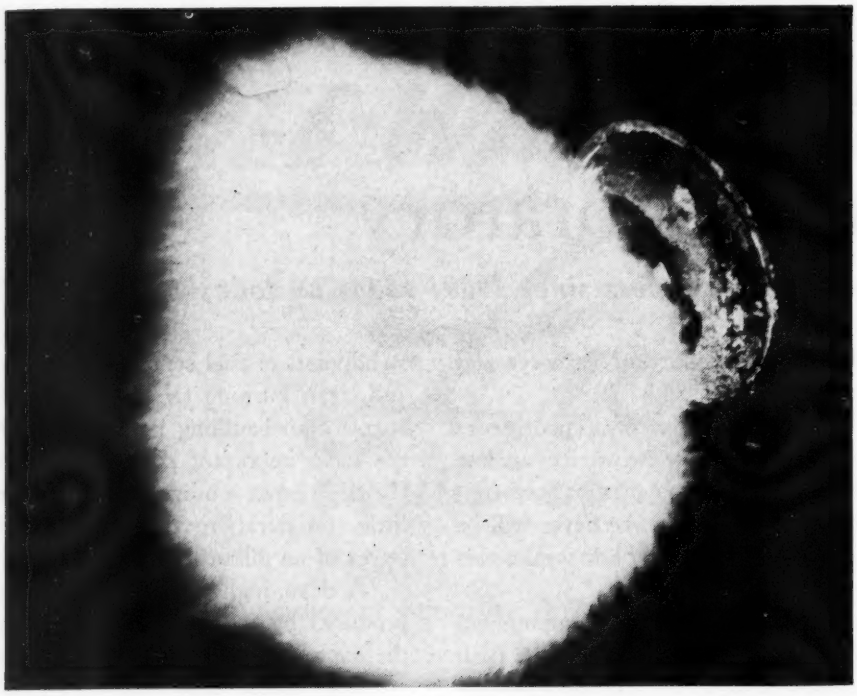
"A clean, high-quality flame can be produced by intimate mixing, within the flame, of combustion air with the atomized fueloil that comes from the nozzle. Ideally, this intimate mixing should be independent of the combustion chamber—not dependent on the shape and size of the combustion chamber.

"The burner's air-flow pattern must conform to the nozzle's oil-spray pattern, or vice versa. You accomplish this with a conventional burner having a fixed air-flow pattern by select-

Doc Heiple, *manager of the Shell oilburner laboratory, in photograph at the left uses a set-up developed by Shell for checking accurately on the spray pattern of an atomizing nozzle. This provides numerical answers to questions about nozzles giving full-cone or hollow-cone sprays. Matter of degree is involved in most cases.*

This test-tube arrangement *(right) definitely shows the spray-pattern of an atomizing nozzle. The center test tubes contain little of the fueloil that was sprayed by the nozzle; this shows the nozzle produces a hollow-cone spray. Some "hollow" nozzles are much more "hollow" than others. That's why studies of this type are important.*





To the eyes *of oilheating experts, nothing is more beautiful than this oil flame! Shell laboratory men produced this flame, burning in the open without a firebox, to demonstrate the advantages of precise, intimate mixing of the air-flow from the gun tube with the atomized oil from the nozzle. Burner producing the flame of course is equipped with the Shell combustion head.*

ing a nozzle which produces an oil-spray pattern that fits the burner's air-flow pattern. In actual practice, this usually proves to be a long, tedious process including trying nozzle after nozzle until you find the one that gives proper results. That's because no two nozzles have identical spray characteristics.

"On the other hand, you can first control rigidly the air-output of the gun tube with respect to its direction, volume, and velocity. You should be able to adjust these within proper limits while the burner is running. Then to produce an air-flow pattern to match the oil-spray pattern becomes a fast, simple, gratifying assignment.

"The Shell combustion head does not permit the air to flow sluggishly and without direction into the firebox, or to rush headlong into the firebox in a hit-or-miss fashion—with the hope that at some spot along the way it will collide with a particle of oil and thus become of use. Instead, the Shell combustion head gives the air positive and controllable direction.

"That's why a stable flame with a fixed flame-front can be produced. That's why the flame does not blow away from the nozzle, or lose its shape, even when burning without a firebox, in the open, as we often demonstrate it and as your phtographs show it. That's also why a smokeless, clean-burning flame is produced using a firebox and starting with the firebox stone-cold.

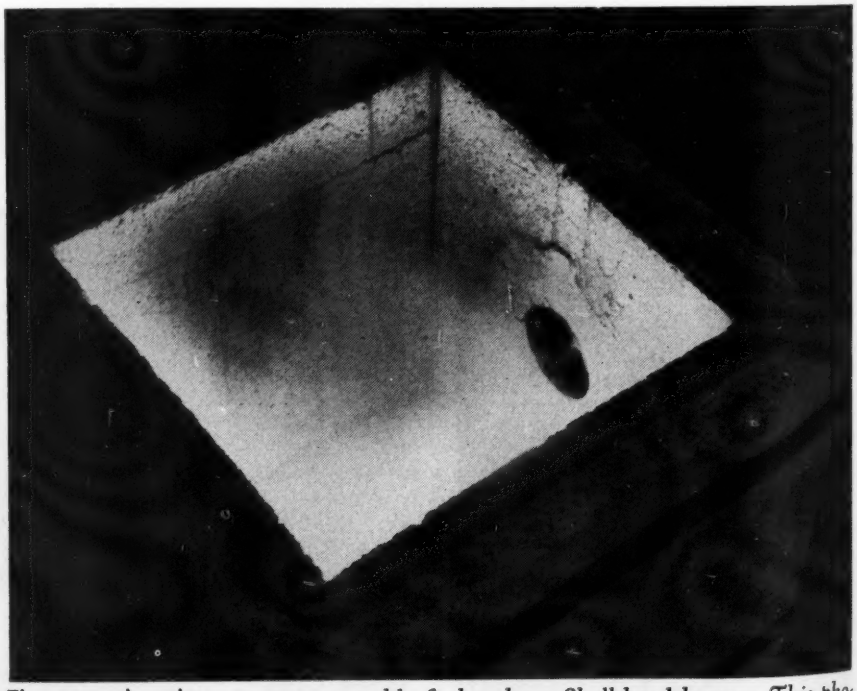
"We use the Shell combustion head to prove to skeptics that CO_2 readings above 10%, together with zero smoke readings, can be produced while fireboxes are stone-cold."

The preceding words—and exceedingly high-minded they are—come from W. A. Sullivan, head of the Fueloil Division of the Shell Products Application Department. He has direct supervision of the Shell Oilburner Laboratory, located at Sewaren, N. J.

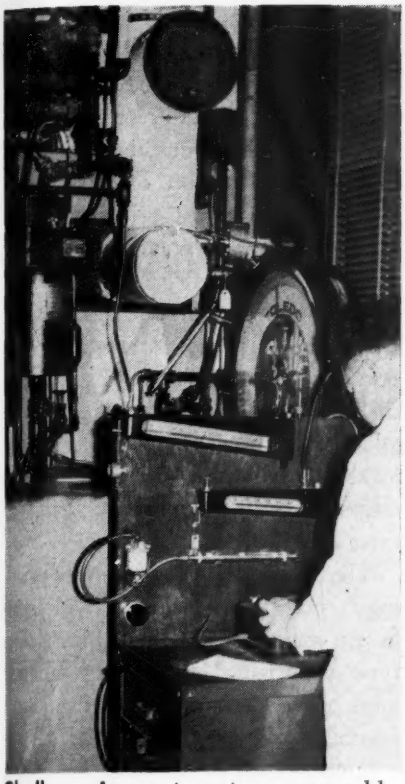
Bill Sullivan, well known in the oil-heating industry, has headquarters at Shell's New York office. Earl Elmquist works there with him as a fueloil applications engineer. Actually both men often are at the Sewaren laboratory.

Fulltime at the Sewaren laboratory, working on oilheating problems, are: H. R. (Doc) Heiple, manager of the Laboratory; L. H. (Larry) Ventres, senior combustion engineer; G. L. (George) Rougier, combustion engineer; and R. C. (Dick) Nelson, fuel technologist.

These men have accurately and properly been called "scientists," but



Flame produced *in an open, portable firebox by a Shell-head burner. This photograph proves the air-pattern of the burner jibes precisely with the spray-pattern of the atomizing nozzle. The flame appears homogeneous and almost transparent. No streaks appear here, because at no points does the atomized oil lack the proper amount of air for complete, smoke-free combustion. Excellent combustion-head design provides exactly the proper amount of air and oxygen, no more and no less, in every cubic inch of the combustion chamber.*



Shell engineer *is using a portable, push-around combustion-test stand. The laboratory has several stands of this type, each equipped with a set of combustion-testing instruments.*

their thinking and talking about oilburners is pleasingly down-to-earth and 100% practical; talking to any intelligent serviceman, they make sense.

The Shell Oilburner Laboratory, at Sewaren, was established in 1930 to investigate the performance of fueloil in all types of oilburners under simulated field conditions, and to work in cooperation with manufacturers to improve oilburners. Big things have come out of the laboratory.

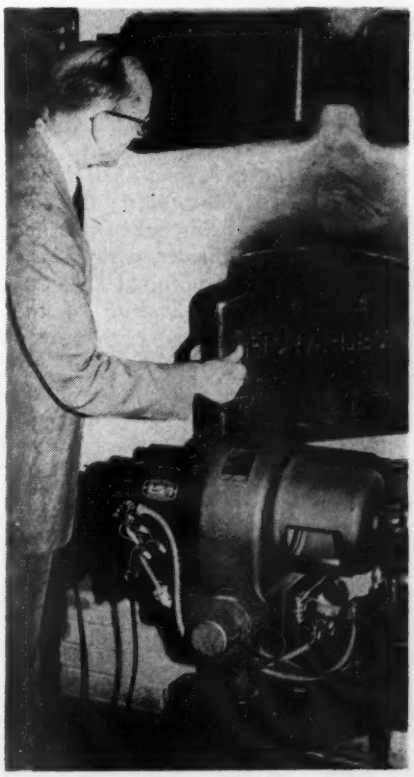
In the beginning, the Shell lab men worked with many oilburner manufacturers in the design and production of burners well able to handle the fueloils then being delivered.

The laboratory arrived at precise definitions for the types of oils needed for different types of burners. Until then, fueloils had been sold according to gravity only. Domestic burners used oil delivered as "28-32 gravity," "kerosene distillate," "range oil," etc.; and big burners used oils termed "14 gravity," "Bunker B," "Bunker C," etc.

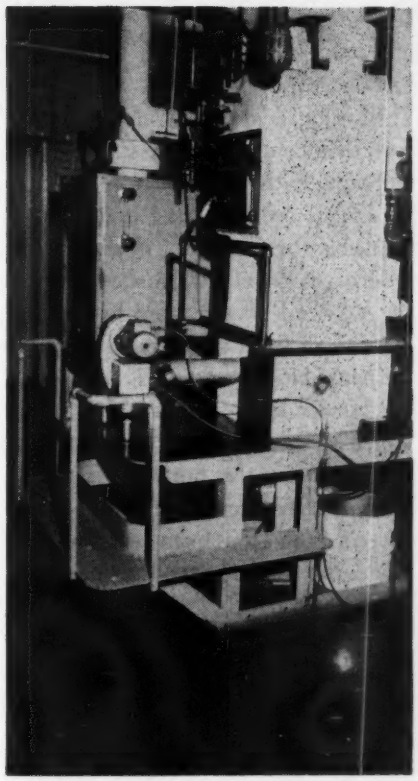
The Shell oilburner laboratory experts first established the fact that many tests being made of fueloils had little or no bearing on the fueloils' performance in oilburners. Then these experts devised more meaningful fueloil testing, which reported more accurately on whether or not the fueloils would do well in the different types of oilburners.

Flash point had been thought to be indicative of an oil's susceptibility to easy ignition in an oilburner, for example. But the Shell oilburner men found that the 10% distillation point was much more reliable as an indication of a fueloil's ignition ability, particularly in the cases of vaporizing types of burners (including wall flame rotary burners) which at that time were presenting ignition difficulties.

Shell laboratory efforts showed that the accepted idea of testing for carbon residue did give a rough numerical indication of the ability of an oil to burn clean in vaporizing burners. But these efforts showed also that a much more positive indication of potential carbon production in such burners came of boiling away 90% of the test sample of oil, in laboratory distillation equipment, and making the Conradson carbon residue test on the 10% heavy-ends of the fueloil that remained. Thus Shell improved matters greatly by originating the test procedure that acquired the name "10% bottoms carbon residue test."



Laboratory *includes many domestic furnaces and boilers, also commercial-size boilers like this one, which can be fired at rates up to 15 or 20 gph. Bill Sullivan checks the oilburner flame on this test set-up.*



Oilfired *steam boiler is high on a specially built platform. This gives a no-bend, no-squat, no-stoop advantage to the men who spend hours working on the burner firing the boiler!*

The Shell combustion head, a product which reflected the dissatisfaction of Shell burner experts with the air-handling parts in the gun tubes of many ordinary pressure burners, first was produced commercially in 1947. Now it is in production in models for from .5 to 25 gph. Shell laboratory men still are actively interested in it, to state things mildly, as can be judged from Bill Sullivan's words at the start of this article. A recent visit to the laboratory produced details of a three-nozzle Shell head firing at the rate of 10 gph.

The Shell-Bacharach smoke meter, the product of Shell expert co-operating with an equipment manufacturer's instrument experts, took the guess out of smoke problems, and oilburner air-damper adjustments, for thousands of burner servicemen. This instrument evaluates accurately the

smoke production and flue-sooting characteristics of a flame.

Concentrating on soot and smoke, Shell oilburner experts arrived at the fact that control of the starting and stopping of the oil-flow from the nozzle by an ordinary fuel unit was responsible for much soot in the flues of a furnace or boiler. The start-up sooting was bad—was caused by the full flow of oil from the nozzle before the burner's blower attained full speed. the burner shut-down soot was much worse—was caused by continuation of oil-flow from the nozzle at full tilt, seconds after electric current had been cut off from the burner motor, and while the blower was slowing down appreciably.

Shell men emphasized that start-up and shut-down soot production was much worse than most burner experts had realized. Out of this line of reasoning came Shell's emphatic recommendation: Pressure burners need delayed-opening solenoid valves in their nozzle lines.

In restrospect, Shell men find highly important their laboratory's development of 1948. Then, they say, as the first oil company to do this, Shell came out with an additive highly effective for lessening the clogging of filters, strainer screens, and nozzles. The additive was termed FOA5X, which stands for fueloil additive, 5th formulation. Since 1948, efforts to improve the formulation have continued. Shell men declare today's additive is seven times more effective than the original in keeping down clogging of filters, strainers, and nozzles.

Shell laboratory efforts brought out SONITOR corrosion inhibitor for domestic fueloil tanks in 1950—SONITOR stands for Sodium Nitrite Inhibitor, and has nothing to do with electronics or national defense, but prevents corrosion of fueloil storage tanks, particularly the tanks of oilburner owners.

Statistics like these are cited to prove the value of SONITOR and other additives of the same function. In 1950, it was not uncommon for a 1500-account fueloil retailer to face the need to replace 50 to 150 of his customers' fueloil storage tanks; corrosion was causing that many tanks to leak and need replacement. Since SONITOR, Shell men say, the same jobber would become excited at the need to replace ten tanks a year, for usually he has to replace only two or three tanks a year.

"All this," Shell burner experts say, "at the remarkable cost of 3¢ per year per customer."

Because of its efforts in this direction, Shell feels, practically all major fueloil suppliers now are following the fashion of using additives specifically to protect their customers against storage tank corrosion. The fueloil and oilheating industries no longer face tank corrosion as a great headache and problem.

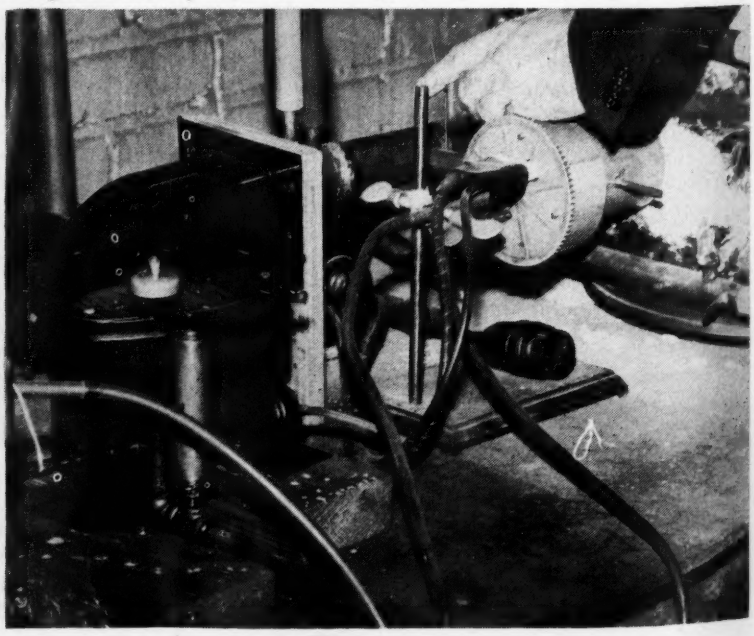
Testing of oilburners and related equipment continues full-tilt at Shell's Sewaren laboratory. Recently when the accompanying photographs were taken for this article, 14 different makes of oilburners were in various stages of testing, and were firing at rates from .45 to 10 gph.

The burner firing .45 gph was proving a point. Installed in a self-contained water heater designed for a pot-type vaporizing burner, the burner was proving the practicability and feasibility of a pressure burner giving a flame of smaller size than one-half a gallon per hour. In daily operation for seven years now, this burner never has been touched—has not broken down, has needed no service. Combustion tests are made regularly; the most recent showed 11% CO_2 together with a smoke reading of zero.

New now among the things being tested at the Shell lab are a unique

(Please turn to page 125)

Left: *A new Shell development, up to now a mystery burner, fires this low-capacity space-heating arrangement. While this photograph was being taken this heater was being fired by the new atomizing type burner, which was producing a silent flame which was entirely blue; reading of 13% CO_2 was accompanied by a zero smoke reading.*
Right: *Close-up of the vital parts of the mystery oilburner.*



This is another story about a dealer actively selling oil heat to builders. Specifically, it tells the thinking and actions of an oil-heating dealer interested in getting new accounts. Mellen, White and Palshaw, Inc., expends a lot of effort making building contractors completely happy with oil heat.

THIRD OF A SERIES—

Quality Builders use oil Heat

Connecticut Dealer taps new home Market by offering exceptional Service

by
William J. Stein

"FIFTY PER CENT of the reason why I put oilheating into my new home developments is the service I get from Mellen, White and Palshaw, Inc."

This is the statement of Louis Beckenstein, a builder of many successful home developments in the Hartford, Connecticut area. He continued with the remark that the reputation of the local gas utility for service is very good. Only the oilheating dealer who makes an all-out effort to surpass the service of the gas utility can influence him sufficiently to install oil heat and get his sponsorship in obtaining the fueloil accounts.

Beckenstein indicated that, personally, he was impartial toward either fuel. However, he wanted the installation that would be most profitable to him in terms of an expenditure of his own energy and concern as well as in terms of dollars and cents. He stated that he found there was a better acceptance of oil heat among his prospective customers.

An interesting problem related to this situation recently confronted Beckenstein. In the Oakdale Terrace development at Wethersfield, Conn., about 60 homes were built. Half of the development was heated with oil, the other half was heated with gas.

An estimate of the cost of the gas for heating was made by the local utility and furnished the home buyers as a means of influencing their acceptance of gas heat. One heating season and the facts showed that the homes with gas installations cost substantially more to heat than the gas utility's estimate. Also, by comparison with the identical homes heated with oil it was found that these gas heated homes cost one-third more to heat.

The owners of the gas heated homes, after comparing costs, represented a disappointed group, anxious to negotiate some settlement with the gas utility. However, their efforts did not stop there. As Beckenstein said, "These people were then on my neck." The builder became a part of a dispute which was time and energy consuming. Moreover, such disputes do not do any builder's reputation any good.

To this builder, as well as any other builder, his time, energy and reputation mean money.

Several other factors related to cost were considered by Beckenstein. He found that homeowners generally wanted a full line of electric appliances, including electric cooking. Provision had to be made for the necessary wiring. This wiring was more than adequate to take care of the electrical requirements for an oilburner. However, if gas heat were used, an additional cost was necessary for the piping and handling of the gas to the equipment.

Another element of cost to him was the heating of the buildings during the construction phase. They worked all through the winter. Most of these homes were in a semi-finished state with an unusually high heat loss. Heating these homes with the less expensive fuel during this period rep-

resented a real savings to him.

These savings absorbed the difference in the cost of installation.

The work of the gas utility is visible throughout the suburbs of Hartford. Road excavations and the extension of gas mains far into the suburbs is evident of the strong effort of the gas utilities to get their fuel into the new home developments. This is augmented by many well-trained hard-working salesmen.

It is the contention of many that the gas utility finds it cheaper to expand its growth into the suburbs rather than in the cities. This is probably due to the limits of the size of the gas mains already in place. Replacement of these mains through paved city streets is costlier than extension into the rural areas.

With these facts in mind George A. Mellen, president, and Julius Larman, manager, Mellen, White and Palshaw Inc., have gone after and obtained a significant number of new fueloil accounts in housing developments in the Hartford area.

The service Concept

Although they are oilheating equipment as well as fueloil dealers, do not make the actual oilburner installation in the new homes. But, they do concentrate on selling the idea of oil heat to the builder. Thereafter, with the co-operation of the builder, they solicit and usually get the fueloil account from the new owner.

All of their efforts are built around the concept of service to the builder and to the builder's customers.

Mellen, aware of his competition, makes it a point to get to the builder during the planning stage. He attempts to convince the builder to install oilheating by bearing down on the advantages of the services he has to offer.

This is not merely a battle of words. Mellen's organization engages in an energetic and constructive program to assure the builder that it is to his advantage to heat with oil.

The motto of the company is "No request for servicing from a builder is unreasonable." The slightest request from a builder or his representative becomes an order to be given first preference. Builders' requests are handled with the greatest dispatch.

This service takes several forms. Mellen, or a member of his staff, stand by as consultants to the builder who is doing his own installation. Advice is available on engineering and technical problems. First firing of the boiler is made and the CO_2 test taken. Necessary minor adjustments for proper operation are made. The burden of the heating system is taken off the builder's hands and mind.

The fueloil firm works on the premise that the builder who finds his oilburner installations go in with a minimum of difficulty will continue to use oil heat. Otherwise, he will be attracted by the gas utilities.

All during the construction stage Mellen, White & Palshaw, operates the heating equipment for the builder. The cost to the builder is kept at a minimum by billing him at regular prices for the oil, but offering all other service at cost.

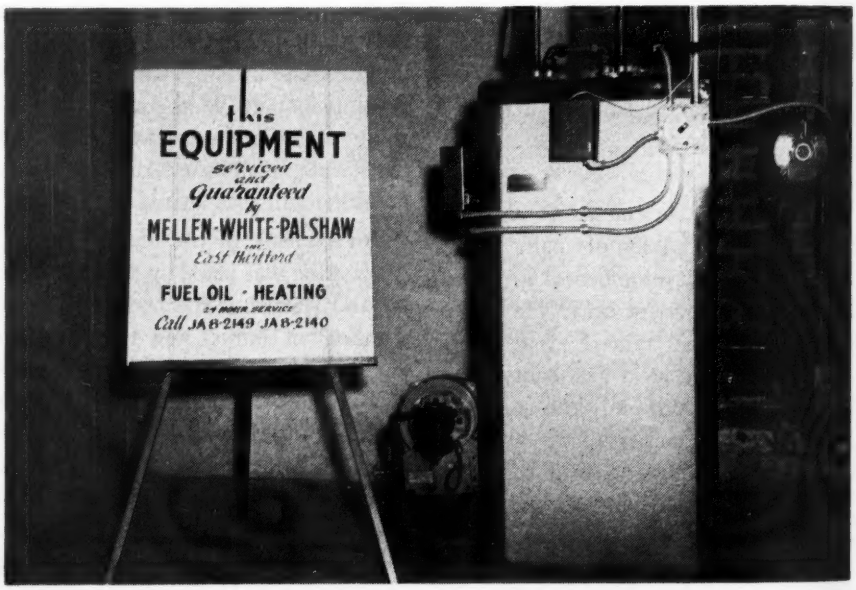
The fueloil distributor is careful to anticipate runouts which could cause freeze-ups in the building and costly charges for the builder. All the operating equipment is in working order during the winter months and the buildings are comfortable for the workers.

Plastering, painting, finishing of carpentry and plumbing are done under more comfortable and efficient conditions. Work goes on more quickly and the quality of the results is better. The builder is charged only for the oil he uses. The day before occupancy by the owner, the tank is filled and the customer is billed for the full tank. The builder is credited for the exact amount of oil that is in the tank before it is filled.

Mellen and his staff cultivate the friendship of the builder and engage in varied activities to cement that relationship. For example, they provide minor services at cost for the builder as an accommodation. These services usually amount to emergency piping or repairs to the electrical, water or heating system that can be handled by the dealer's regular service department.

Even after the job is completed and occupied by the owner, Mellen extends these minor services to the builder. Frequently, there are minor repairs after the builder's workers are off the job. The service department picks up the call and handles it at cost for the builder.

Once, while working in a model house one of the salesmen remarked how nice it would be to have airconditioning. Accepting this suggestion, an airconditioning system was in-



Beside *the oilfired heating equipment in one of the model homes in the Laurel Park development is this sign emphasizing that the boiler is serviced and guaranteed by the company. The sign points out that the fueloil company offers 24-hour service.*

stalled in the model home which was the builder's and salesmen's office. This was later sold, at cost, to the homeowner. This served the two-fold purpose of promoting airconditioning sales to the homeowners and to cement the relationship with the builder and realty salesmen.

Where possible, Mellen, White and Palshaw, co-operate with builder customers in their first newspaper advertisement of the housing development. The purpose is to get the factor of oilheating and Mellen's authorized service across and associated with the development. Although this is a plug for the builder, it is also direct effective advertising for Mellen.

All these accommodations for the builder help to expand a growing and profitable fueloil business.

In each model home, alongside the boiler, hangs a sign stating that Mellen, White and Palshaw, is the fueloil dealer who is authorized by the builder to service the oil-burning equipment. Company name plates are attached to all the boilers or furnaces in the development. This implies that the fueloil account will be secured by the company.

The names of the purchasers are given Mellen soon after they are determined. The owners are solicited and are advised by the builder and the dealer that Mellen, White & Palshaw, is authorized by the builder to service the heating equipment. With few exceptions this signs up the fueloil account.

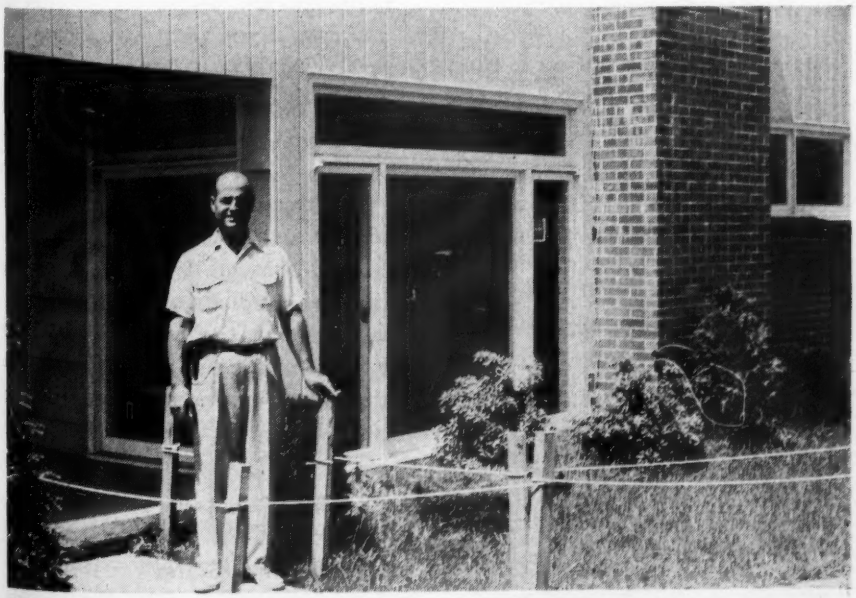
Through special *servicing arrangements with the builders, Mellen, White and Palshaw, Inc., secured the fueloil accounts for almost all of these homes.*

The builders, in their own way, encourage their customers to purchase fueloil from Mellen. To the builder it means that all service and minor repairs on such equipment are taken care of for the duration of this arrangement.

As one builder said, "It's a big headache off my mind." In cases where these arrangements are not made, the builder must provide service under the usual one year warranty. The builder usually seeks to avoid this because of the complications involved.

Mellen, White & Palshaw's primary business is to sell fueloil. New accounts in large numbers are not acquired easily. Regardless of the method used, the acquisition of new accounts is costly. Mellen's tool is service to the builder and the builder's customers. The gross result is a steadily growing profitable fueloil business.

Mellen offers this constructive suggestion to the oilheating industry: Provide better service than the local gas utility and advertise co-operatively that oil is a superior fuel with better and, more importantly, personalized service available to the homeowner.



Henry Beckenstein, *development builder stands in front of one of the model homes at the Laurel Park development. He has found by experience that oil heat is better—and preferred in the long run.*

❖

Economists in Survey See 1957 as banner Year

THE BEST business year in history is the forecast for 1957 of 221 leading economists queried by the F. W. Dodge Corp. in its annual survey of opinions on the economic outlook. However, it is the consensus that new records set in 1957 in dollar terms will be primarily the result of further shrinkage in the purchasing power of the dollar, rather than a real increase in output.

An analysis of the survey by Dodge vice-president and economist George Cline Smith produced the following summary of opinion: 1957 business will be excellent and no downturn is in sight though sharp increases in the major economic indicators is not expected; gross national product will reach an annual rate of $420 billion by the end of the year as compared with the $408 billion rate for the third quarter of 1956; personal incomes, prices and wages rates will rise moderately while industrial production, business investment and construction activity remain at about this year's levels.

Oilheating's future Growth

Prominent Speakers at* API *Convention tell what They see on the Road ahead

On November 12 at Chicago the Fueloil Committee of API's Marketing Division presented a program to all top marketers in which three speakers told what they foresee for the oilheating industry. One was an equipment manufacturer, George Hochstein, Heating Division manager, The Heil Co. and president of Oil-Heat Institute of America.

Next was R. A. Hunter, general manager, retail and jobber sales, Gulf Oil Corp., followed by A. L. Dwelley, president, Automatic Heating Corp. of Mass., Boston.

Thus we had an equipment man, a refiner and a fueloil distributor not only to project the future but also to outline the help that each of them felt they needed from the other two.

The speeches have been cut a bit, particularly in the early paragraphs to save space, but the significant points remain.

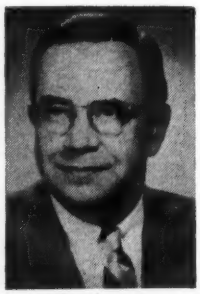
A Manufacturer appraises the oilheating Industry

by

George Hochstein*

WHERE ARE WE NOW and where are we going with oilheating? Let's start by looking at some of the industry's shipping and market figures from 1949 up to the present time.

Central Atlantic States



Hochstein

Shipments of oilfired equipment with the states comprising this group increased over the number operating on January 1, 1949 in use as of 1948 by the following percentages: Pennsylvania (154.0%), New Jersey (135.5%), New York (114.6%), Maryland (84.7%), Delaware (157.5%), and District of Columbia (79.9%). There were in 1948 a total of 1,635,734 oilfired units using No. 2 fueloil. Shipments in the next seven years through 1955 were 123% of this or 2,011,900 units, a yearly average for the area of 287,000 units. Taking the year 1955 as an example of a satisfactory year's business, it compares with the seven-year average as follows:

1955	250,400
Seven Year Average	287,000
Estimate—1956	185,000

Some tapering off is indicated in New York, more so in New Jersey. While D. C. appears to be stationary as a consumer of heating oil, this represents a loss because of the tremendous growth in the area.

New England States

Maine (111.7%), Vermont (137.5%), New Hampshire (138.3%), Massachusetts (107.4%), Connecticut (111.9%) and Rhode Island (124.8%).

This area remains one of the country's prime oilfired equipment markets. Shipments in the seven years (1949 through 1955) were 112.5% greater than the total installed equipment as of 1948, which then stood at 700,000 and now at 1,380,000. Rhode Island alone appears to be tapering off.

Comparing the seven-year average with 1955's result we find the following:

1955	127,700
Seven Year Average	117,000
Estimate—1956	120,205

North Central States

The bracketed figures following the state designation indicates the ratio by which the total units in use in 1948 were exceeded by shipments during the following seven-year period, 1949 through 1955: Michigan (196.8%), Ohio (337.7%), Indiana (297.2%), Illinois (230.4%), Wisconsin (201.7%), Minnesota (114.2%), Iowa (222.9%), Missouri (122.4%), Kansas (142.6%), Nebraska (101.0%), North Dakota (160.6%), South Dakota (109.9%). This area together with the New England group forms the backbone of today's market for oilfired equipment and will likely continue as the mainstay for years to come. Up to 1949 the area installations totaled about 894,000. Over 1,000,000 units were sold between 1949 and 1955 (the majority of these between 1952 and 1955) bringing the total above 2,000,000, actually an increase of 253.5%.

Sales in 1955 (a good average year) compares with the seven-year average as follows:

1955	285,000
Seven Year Average	246,000
Estimate—1956	286,000

South Atlantic States

Virginia (109.3%), West Virginia (973.3%), North Carolina (256.3%), South Carolina (172.9%), Georgia (167.7%) and Florida (71.9%).

This area is a growing oil heat market with an overall increase of 139.9% in 1949 through 1955, greater than the total installations prior to 1949. Shipments in the first half of 1956 strengthens the indication found in a study of the individual states with one exception, Georgia.

1955	57,344
Seven Year Average	38,700
Estimate—1956	78,500

South Central States

The South Central area comprising: Kentucky (296.3%), Tennessee (162.9%) Alabama (92.4%), Mississippi

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(128.9%), Arkansas (89.3%), Louisiana (61.1%), Oklahoma (204.7%) and Texas (54.7%), cannot be considered as a prime oilheating market. In 1948 there was a total of 60,700 installations. This grew to 100,000 by 1955, an increase of 164.7% in seven years.

1955	10,500
Seven Year Average	8,700
Estimate—1956	7,600

Mountain States

Montana (163.4%), Idaho (161.7%), Wyoming (159.7%), Colorado (92.9%), New Mexico (55.3%), Arizona (34.7%), Utah (183.6%), and Nevada (100%).

Sales up to 1949 were 59,112; sales from 1949 through 1955—66,358, an increase of 112.3%.

Excluding Arizona, Nevada, and New Mexico, the Mountain States are growing but limited market areas for oilheating equipment.

1955	12,536
Seven Year Average	9,480
Estimate—1956	10,800

Pacific States

Washington and Oregon continue as growing markets even with gas competition reaching its peak. Oregon with an increase of 116.5% for the seven years 1949 through 1955 and Washington with 115.0% in the same period over all sales prior to 1948 may be expected to continue at least at the current rate through 1960.

California is a drooping market with a percentage comparison of 40.9. It may be expected to continue to decline as a potential market for oilfired equipment.

1955	57,912
Seven Year Average	47,000
Estimate—1956	51,700

There has been a certain degree of design and efficiency improvement in oilburners and their related furnaces and boilers. Research and engineering has given us improved firing heads on burners and much more compact designs of furnaces and boilers. Application engineers have come up with a number of good suggestions in regard to heat distribution. This latter led to the design and introduction of the counterflow furnace and the horizontal equipment as we know it today. However, in my opinion, our industry is falling far short in this whole area of product improvement and new innovations. True, many manufacturers have done a creditable job of engineering costs out of product. But, broadly speaking, this is where they have stopped.

A possible answer to this condition may be the highly competitive condition in the industry and the resultant lack of funds on the part of manufacturers to carry on a sound research program. Another reason may be the buying habits of many people that direct the volume purchase to the lowest priced items, and these purchases may be away from manufacturers who, through the years, have contributed most of the new ideas and products to the industry, leaving the volume of business in the hands of those who rely on the copying of product to take care of their research and engineering.

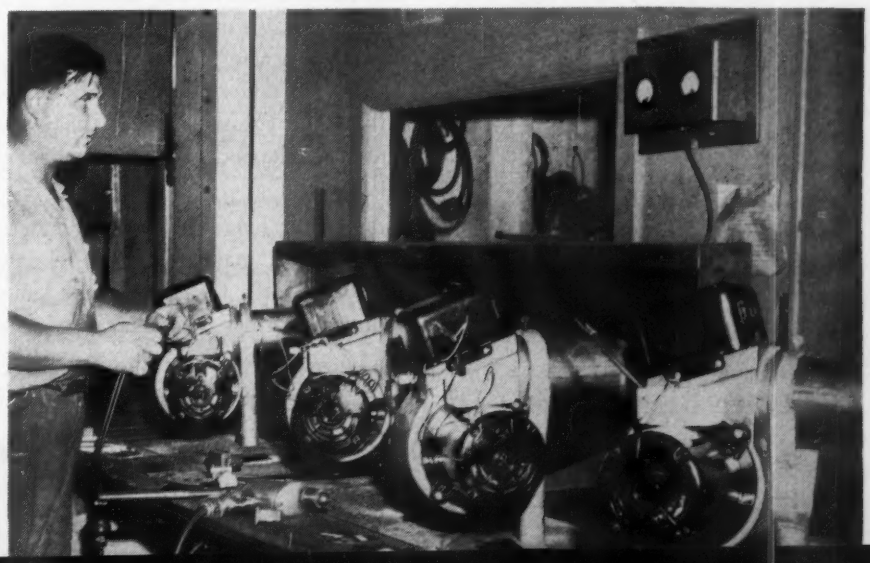
Another reason may be the lack of co-ordination between the research departments of the major oil companies and manufacturers as a whole, or possibly the poor co-ordination between the majors themselves on a united effort. This problem, as I see it, cannot be answered here, but possibly a committee composed of oil people and burner manufacturers could look at the whole product picture and come up with ideas and suggestions.

There has been some indication that service on oilheating equipment has been deteriorating with the resultant loss of the user's confidence in oilheating products as such. It is particularly true in areas where large housing developments are going up and the seller and installer want no part of the adjustment and service problem. Also, additional thousands of installations are made by the sheet metal and plumbing tradesmen who, after the installation is made, do everything they can to stay away from the service part of the job. The end result is some users are at wits ends when service help is needed.

All of us will agree there is nothing better than a satisfied customer, and we should all agree that for this industry to grow it is necessary to have widespread customer and builder acceptance. A certain amount of work and planning is going on by responsible equipment manufacturers, local trade associations and national manufacturer groups. Experience has shown us, however, that the job of training the large number of men needed is not adequate. Also, the manufacturers and trade groups have not been able to completely sell the installing group on the theory they have the service job to handle, too.

It is entirely possible that more companies who sell and deliver fueloil may have to assume a greater and greater share of the service responsibility. Assistance in the area of serviceman training may well become an added job of the majors in the fueloil business.

For many years when oilheating equipment manufacturers met in small groups, I have heard the following comments in connection with assistance and support from the petroleum industry. Maybe you have heard these, too. In the interest of further developing our continually improving industry relations, I think it is a good idea to discuss them frankly and openly. Let me say this, too, that during the past two years and particularly since "Oilheating Market Reports" came



into existence, I have noticed a marked change on the part of most equipment manufacturers in this regard. The following are some of the suggestions:

1. A great deal more advertising and promotion in newspapers, magazines and radio should be placed by the petroleum companies directed to the buying public on an oil industry basis. This should be on a continuing schedule promoting oil as a fuel for the modern home. It is also felt that the petroleum marketers can help greatly in doing a promotion and selling job on builders and architects. This advertising and promotion is badly needed, particularly now that so many large gas utilities are pushing so hard to increase their gas loads through added central and space heating installations.

2. The timing of fueloil price increases concerns many in the industry. It is felt that fueloil price increases that come late in the summer have a tendency to slow up oilheating equipment sales through the entire fall.

3. Assistance by the majors to encourage more fueloil dealers to get into the selling, installation and service of oilheating equipment.

4. In company training of personnel on the advantages of fueloil as a home heating fuel to help make each oil company employee a salesman for oilheating equipment.

5. A more competitive price for fueloil in such major markets at Detroit, Cleveland, Pittsburgh, St. Louis, Minneapolis, Chicago, especially where the economic advantage of the other automatic fuel is so pronounced.

6. The new construction market will continue to be large for years to come, and a greater share of that market should go to oil heat. The equipment and tank price disadvantage usually is so great the builder and architect installs other fuels. Possibly there is something that can be done in the handling of the fueloil storage portion of the entire equipment cost.

Shipments of oilheating equipment in 1956 will approach 750,000 units. This is under last year's total by 9% to 12%. The fall-off, however, can well be only a temporary decline. Many people in the oilheating equipment business feel that with the momentum gained during the past five years there is every reason to believe the present rate of shipments will hold through 1960. Conceivably, with residential construction moving up again and the effect on the market of the oilheating market reports program, we could see oil equipment shipments increase to 1,000,000 units by 1961.

This figure, I believe, can be a reality. To reach this goal, however, the petroleum and equipment manufacturers must both put their shoulders to the job. By working together we can both contribute to a growing industry.

A Refiner looks at Product, Delivery, Burners and Service

by

R. A. Hunter*

I AM HONORED to speak to you, and I'd like to explain the three things that sold me on accepting the invitation:

Hunter

The first thing was the stature of the other two speakers — personally, and as members of the oil heat industry. They are both men I admire and respect, and with whom I am proud to appear on the same platform.

The second thing was my satisfaction in the major suppliers' contributions to the heating oil industry along the lines of James Dyer's recommendations to refiners in his superb presentation at your 34th Annual Meeting here in Chicago two years ago. I know you will remember how the astute president of Sinclair Refining laid it on the line that it was high time for the petroleum industry to stop underrating the importance of distillate fuels; to give the industry the finest fuel possible and to cooperate in every way practicable in maintaining the tremendous heating oil market which they were enjoying practically as a gift of the equipment manufacturers and the independent heating oil marketers.

I feel that his remarks were taken to heart by all major refiners. I know that at Gulf, Charlie Kramb, our Home Heating Marketer, literally hailed it as top-level support for the views he has been pounding and propounding for years.

And now the third thing. I was asked to recommend in my address some means by which the other two segments might better the chances of oil heat. To me, and to you, no doubt, that means primarily "against gas." Well, I thought Vice-president B. L. Ray of Esso did a tremendous job of just that in his speech at the API annual meeting in San Francisco last November. But then this thought struck me. I have had considerable domestic experience with both gas and oil heat, in the course of which I accumulated quite a few little opinions that might be translated into recommendations in blunter terms than a cultured gentleman like Mr. Ray would ever use.

So I decided . . . if the Committee would settle for what is almost an off-the-cuff chat from the furnace room rather than a painstakingly prepared dissertation from the ivory tower, I would make it.

The houses I occupied during my several years in the East all were oil-heated. Those I have lived in during five years in Pittsburgh and Washington have been heated with gas. Strictly from a heating standpoint, I have never noticed that one fuel was superior to the other. The only times I was conscious of the fuel at all were on those few occasions with oil when I was irritated by what I felt was an unnecessary or an excessive service charge, or by a faint oily smell through the house from a few drops the serviceman left unattended on my basement floor, or by the little dunking my drive, lawn or shrubbery got from

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faulty handling of the fill hose. As far as I can discern, with both fuels the heat was equally automatic, equally clean, and equally satisfactory.

I am forced to conclude from my own experience that ordinarily one risks more annoyances with oil than with gas. But those I encountered were certainly not so disturbing, in degree or in numbers, that they would have driven me to changing to a gas installation. I was definitely what would be regarded as a satisfied oil heat customer. Yet, I put myself in the place of the typical satisfied oil heat customer building a new home or confronted with the need to replace his worn out heating plant, and I understand perfectly what happens. He compares his oil heat experience with the picture of perfection so incessantly and so impressively proclaimed by the gas interests, and the infrequent and relatively unimportant annoyances he accepted as inevitable and inseparable from oil heat now loom unendurable and inexcusable. He goes to gas.

So the gas story is successful in a big way, first, because oil is vulnerable, much as we hate to admit it. But the story is successful also because it has been so big, so loud, and so effective on the public to date, that too many in the oil heat industry have been hornswoggled into accepting it at face value and are understandably demoralized. The hornswoggled fall into two groups, roughly:

"Waiting for Ships . . ."

First, there are the defeatists. They swallow every good thing gas says about itself, every bad thing gas says about oil, and make up their minds to get out of the heating oil business as soon as they can. To my mind, strange as it may sound, the defeatists are actually the least harmful of the two groups to the industry. They are much smaller in number, fortunately; and though they are gloom spreaders, they counterbalance that evil eventually by quitting the industry and leaving their accounts to bolster the business of other marketers.

The second, and far larger, group is made up of individuals I would compare to that sad apple, the disconsolate crooner moaning his hopeless frustration of "Waiting for Ships that never come in." They, too, have accepted the gas story at face value. They, too, are convinced of the industry's helplessness against gas competition, but they hold on in the forlorn hope that somehow—sometime—soon perhaps—a cure for all their difficulties will appear over the horizon. Perhaps gas reserves will suddenly dry up, perhaps gas consumer prices will zoom, perhaps this, or perhaps that.

Proper Perspective

Happily, however, a great many members of our industry have not been so badly bamboozled by the ballyhoo of the gas boys and the present predicament of our industry—serious though it is—that they still can't see things in their proper perspective. And they are far from discouraged at the prospects they see for oil heat. The major suppliers, generally, belong in this group, along with some stout members of the other segments.

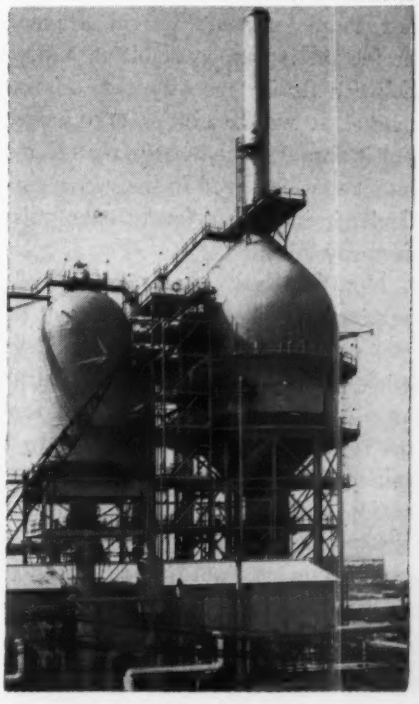
This group knows the gas story is exaggerated. It feels also that gas will not always have the enviable price position she enjoys in many areas now. But it does not count on that; nor does it indeed base its confidence in the eventual resurgence of oil heat on the prospects of any calamity or misfortune befalling its arch-competitor. (That is essentially the wan hope of the helpless waiters-for-ships.)

No, this group too realizes that oil-heating presently has faults upon which gas can honestly stake a claim to preferability. (I think I covered those shortcomings pretty well in recounting my own annoyances with oil heat.) But it refuses to accept those faults as unalterable or even inevitable. It is convinced that by the co-operation of all segments of the industry, the remedies for our traditional shortcomings can definitely be found, thereby assuring oil at least equal preferability with gas. We will need the co-operation of all members of all segments of our industry. But that, I feel, will be given enthusiastically if I can show by my analysis of the situation that there are genuine reasons for optimism. I will analyze the situation piecemeal, discussing product, delivery service, burning equipment and burner service in that order.

As regards product, you will recall Mr. Dyer's insistence that the refiners should make available to the industry the best distillate fuel it is possible to make. Well, I can assure you that enormous sums are being spent solely for upgrading product. Gulf is going the route of hydrogenation. (We call it Gulfining.) Other refiners are pursuing the same route, and still others are working along other assured ways of achieving a top quality product.

The methods are not the point of the discussion, of course; I'm simply trying to get across that most refiners, by one assured method or another, are spending literally millions of dollars to produce the finest heating oil that can be made. Aside from the standpoint of superlative fuel, there's another mighty reassuring aspect to this activity. Can anyone imagine that the refiners would invest these enormous sums in improving distillate quality with expectations of a dwindling or even a static market?

Since I'm going to open my comments about delivery service on a critical note, I hasten to make it clear, first, that I'm aware most good retail heating oil marketers are only a step or two from perfection. Serious spills and run outs, I take for granted, are an extreme rarity any more. (I know



I never experienced either of them.) But let me suggest that too many of us are resigned to shoot for a 95% or 96% grade in the course, when only 99.99% at the very least should be passing.

Shortcomings

Our chief shortcoming here lies in the common but disastrous tendency of delivery personnel to regard a spill as inconsequential if it involves only a few drops. That assumption, naturally, springs from unconscious comparison with a serious spill. Compared with a catastrophe—and a serious spill is truly catastropic for us, particularly at this critical time—most any lesser tragedy can seem inconsequential. But the proper comparison is with gas, whose user never is bothered by the slightest fuel odor from his basement or from his premises outdoors . . . or by an oily blotch on his lawn . . . or on the crushed limestone of his drive.

The result of our laxity in the matter of trivial spills is insidious. Likely, the customer himself even considers his resultant annoyance too trivial for open complaint to his supplier. But the eggs of minor annoyance left with the customer later hatch into resentments that he nurtures until the day he needs a new heating plant, at which time they come home.

Only virtual perfection will do and praise be, it seems that the mechanical assistance we have needed to take our last couple steps to virtual delivery perfection is now available in a new delivery device recently put on the market. It may be a bit early to judge, but it appears that whatever problems may be encountered in the use of this device in its present form can be satisfactorily solved.

Now for the situation as regards oilheating equipment. I know many of you can remember back to the days when Gulf manufactured an oilburner. I bring that up now lest you forget that it includes Gulf—if only to a minor degree—when I say that many majors have a first-hand knowledge of the problems that beset the burner manufacturers. And I repeat purposely here that I know of no major supplier who takes issue with the opinion that the heating oil suppliers are greatly indebted to the burner manufacturers.

Well, the encouraging word I bring on this topic is that the pressure of the times has forced the major suppliers into an awareness of a very practical way to repay. The predicament of the oil heat industry today has brought into focus the urgent need for research and development work on oilburning equipment; and the majors realize that with their fine laboratories and skilled manpower, they should be able to make a great contribution to the industry along that line.

Possibilities

Consider the wide range of possibilities. Perhaps present types of equipment can be improved and their cost reduced through simplification of engineering and design. That's one of the more obvious avenues for exploration, and certainly an attractive one. Simplification can mean not only reduced price, but reduced trouble potential, increased sturdiness, easier assembly, and reduced inventories. The possibility of coming up with a small adaptor or relatively simple mechanical contrivance to improve the performance of existing installations is not even to be discounted. From one or more of several approaches, we feel sure that improved performance is attainable.

On the more romantic side, the aspiring Ketterings among our laboratory personnel are savoring their hypothetical prospects of coming up with a completely new and superior kind of equipment for burning heating oils. Far be it from me to scoff at their chances. Considering the facilities at their disposal, their training, their love of such work, the persistence I know they are capable of—and considering my own hunch that there could well be a better way, I won't be entirely dumbfounded if they find it.

Only one more thing they need—and the burner manufacturers have it. May I request of them now that they give us the benefit of the technical and practical knowledge they have accumulated over their years of manufacturing oil heating equipment. That background information can be vital to our cooperative success. They have a standing invitation to come to our laboratories for an exchange of ideas on the manufacture of improved fuel oils and burning equipment.

The major suppliers are putting their facilities to work for the benefit of the industry and you have my assurance that we are going into this thing with positive expectations of results. One major, as you probably all know, has already reported promising progress. You can bet that every possibility will be explored—and thoroughly! Who can fail to be encouraged at the prospects?

Finally, we come to the focal point of most of the industry's ills and most of our customers' complaints: burner service, that profitless, thankless activity abounding in faults of its own and yet scapegoat for the sins of others to boot. Oil inferior? Equipment faulty? To the customer it's a burner service charge. Serviceman slow or inadequate for lack of proper instruction? It will be reflected in a larger service charge to the customer. Undoubtedly it is on the point of burner service that gas heating rates its biggest appeal to the oil heat user.

Remedies

But the prospects for remedy here, too, are very encouraging. I don't believe it has ever been announced before, but Gulf's Bob Gilmartin, chairman of the Technical Division of OHI is shooting for a goal of one service call per year per oilheating customer. That would put us—in what is now our weakest department—on par with gas. Is it feasible? He feels it is—and within a reasonable time. Here's why:

The need for service derives, almost entirely, from three sources: faulty oil, faulty equipment and faulty service itself. The Technical Division is counting on the continued efforts of the majors in upgrading product quality to virtually eliminate the first source soon.

The second, they feel, can be reduced almost to zero as an outgrowth of the cooperative research and development endeavor on oilheating equipment. The third source, they believe, can be minimized by flooding the field with clear, correct instructions on equipment servicing—particularly, instructions for making the proper me-

chanical adjustments to the various types of equipment.

Surprisingly, there is a deplorable dearth of such instructions throughout many areas. But the major suppliers realize that as a logical corollary of their research and development work on burning equipment they can make an additional contribution to the industry by aiding the equipment manufacturers in the preparation and distribution of this badly needed information to the field. That assistance is definitely forthcoming.

And that, gentlemen, is my analysis of what's in store for us in the four vital departments upon which our blight or our bloom will largely be decided.

You downcast brothers who wait for ships in forlorn hope, should now be able to raise that hope to actual faith in the ability of our industry to meet the future on our own merit—and thus you will have acquired the first essential to success.

Just now, in a sense, we all are waiting for ships. But as any mariner knows, ships just don't come in; they are sailed in. I have told you what course has been plotted. Faith of the right kind expects success only as the reward of a just Providence for ceaseless striving. Let me suggest what you can do to help sail them in.

Obviously we must play for time. We must minimize and compensate for our present shortcomings solely by ungrudging effort even beyond our reasonable duty in a convincing display of voluntary service. We must contrive to extend our customers' use of present oilburning installations as long as possible. Specifically, I offer these recommendations:

Keep Customers happy

Eliminate the annoyances of trivial spills. I believe I have already covered this topic sufficiently.

On the matter of burner service, never price a service call above the reasonable value of the function performed. By "reasonable" I mean to imply that the errors and shortcomings of servicemen are not valid components of the charge.

If at all possible, don't let a customer's heating plant deteriorate to the point where there is no alternative to major replacement or repair expense. That, of course, is the crucial time for considering conversion to gas. Forestall obsolescence and deterioration by well-timed piecemeal replacement and repair. And price that work with your mind on your object of keeping the customer on your list of satisfied heating oil accounts.

My final recommendation has to do with a less direct means of enhancing the chances of oilheating. It derives from Mr. Dyer's recommendation that the refiners and suppliers assure the independent marketers that the supply of distillate will always be equal to the demand.

Briefly, if you will forgive the overtones of a sales pitch, the independent marketers can do a great deal to assure themselves of adequate supply by going branded. Incidentally, I believe the industry's attainment of its top-quality ambitions would be considerably hastened thereby, also.

The branded Reseller

I know that is a delicate and controversial subject, so I hasten to support my stand. The refiner who is proud of his product is justifiably anxious that it reach the consumer under his brand name. To get widespread consumer recognition for the excellence of his product, he, therefore, seeks to distribute through branded reseller outlets whenever possible, even though he thereby

(1) assumes the blame from the branded reseller's customers in the event of product difficulty,

(2) underwrites any legitimate expense to which his branded reseller may be put as a result of product trouble,

(3) shares responsibility with the branded reseller for keeping the latter's customers in product regardless of the extent of their needs or the circumstances, and

(4) underwrites his branded reseller's entire growth requirements.

Certainly every refiner tries to anticipate the product needs of all his customers, with a safe margin to spare, but in view of the foregoing he is compelled to make greater allowance for the growth of his branded resellers. In light of those considerations, it is hard to see why any independent marketer would not want to bolster his security and his own good reputation by taking on a brand product of recognized excellence.

Co-operative Promotion

By going branded an independent marketer also puts his supplier under greater obligation to co-operate in promoting and maintaining the sale of his product. (Today's emphasis on the need for industry-wide co-operation in oil heat promotion points up the extreme importance of this consideration.) After all, a refiner—or any supplier—feels under greater compulsion to co-operate in promoting and maintaining the market when his product is reaching the ultimate consumers under his brand name. I can't help but feel, also, that the brand resellers feel more justified than the unbranded in soliciting the co-operation of their suppliers.

While we're on the subject of co-operation, I think you will agree there is abundant evidence that the majors are taking seriously their obligation to co-operate—not only with the independent marketers, but with both other segments of the industry—in promoting and maintaining the heating oil market. Gulf's co-operative activity, if you'll pardon the family reference again, stems from an intimate and practical knowledge of the industry's needs at every level. Such knowledge we consider indispensable, of course, and attainable only from heating oil marketing activity at those levels. I can assure you we will continue to fulfill our obligation to co-operate to whatever degree and along whatever lines are revealed to be justified in the light of such knowledge.

In summary and conclusion, there is still an excellent future for oil heat. That's obvious, of course, as concerns those large sections of the country where gas is the more expensive fuel; and those suburban, semi-rural and rural areas where oil will have time to get comfortably established before gas will be generally available. But the point of my message is that the lucrative markets now under the onslaught of supposedly irresistible gas competi-

tion needn't be written off either.

I have great faith in any co-operative endeavor to which the petroleum industry is a party. Back around 1948, skeptics scoffed at a prediction by Charles F. Kettering that we would some day have automobile engines with 10 to 1 compression ratio and wonder fuels of 100 octane rating to feed them. That was beyond reason then—a much more fantastic goal than we have set for our co-operative research and development efforts in the oilheating industry. And it already has been realized—through the co-operation of the automotive and petroleum industries.

You can appreciate why I think there is every justification for faith that oil will be meeting gas, on equal terms at least, some time not far off. Considering that in many respects we are just setting ourselves realistically to the task, I can't claim we are over the hump; but by the same token, we're not over the hill either. As some of my good friends in the business put it, the oil heat industry has barely reached middle age. Seeing so many of us are in that prime time of life, I'll seize on that statement to leave some metaphoric observations with you.

How oil heat fares from here on in depends for the most part on the extent to which we correct the errors of our youth and fulfill our co-operative responsibilities for our mutual welfare. The profits, enjoyments and achievements of the past are still ahead for those who want them badly enough. Does anyone doubt that? Who else of middle age among us won't agree with me that in middle age one can still duplicate the deeds of his youth? He just has to work harder at it.

Better Management is the Key to Oilheating's future Success

by
A. L. Dwelley*

TO SAY that we are in changing times, certainly applies to fueloil dealers who have built substantial gallonages through the sale of oilburners. My reason for saying this is the fact that the conversion market from other fuels, particularly solid fuels, is rapidly coming to an end. In New England, we work on a conversion market that is about 90% converted, and I believe I am right in saying this same condition generally is true in the rest of the country in the areas where substantial amounts of fueloil are used for heating.

Dwelley

The present market that we are working on in Boston is made up largely of tenants, or very low income homeowners, which represent the last of the conversion program, and with it a good many problems of credit, poor or inadequate heating systems, and many times excessive fuel consumption, due to the dilapidated condition of some of the homes.

Needless to say, conversion sales have dropped off substantially, but these sales are being supplemented by sales to new homes and through sales to the ever increasing replacement market. This replacement market however, does not create new gallonage, in fact, the opposite is true in that oil consumption is usually reduced by the installation of new and more effective equipment, with savings in fuel consumption sometimes amounting to as much as 40%.

There are of course, many other drains on a large existing fuel business and just how large these losses are is pretty liable to be a good indication of how healthy your business is. These customer losses in order of importance in our area run about like this:

1. Moving to new location.
2. Accounting department trouble —credit.
3. Friend or relative, which may be a cover up for price cut.
4. Buying locally.
5. Other fuels.

As I said, these losses are, in my opinion, a pretty true barometer of the condition of your public good-will. After all, most of the value of a fuel-oil business is good-will, and if you take that away about all there is left are some trucks and office machines, which don't have much value. I bring this up because much can be done by dealers and the industry as a whole to take better care of public good-will, which certainly affects our future.

There is probably a need in all of our operations for more prompt service and better handling of customer calls and complaints, and better trained telephone receivers and better trained contact salesmen. The additional cost in service and overhead expenses is certainly more than paid off in the long run, and certainly does have an important bearing on the future of the oil industry. This is especially true in my opinion as our competition with other fuels become more and more competitive and aggressive.

Concerns that have built substantial gallonage are now finding it hard to continue to grow for several reasons, the most important being the diminishing conversion market.

I believe the future of the large and small retailer is going to be governed to a large extent by the kind of future the industry makes for itself. In other words, if we do an increasingly better job of taking care of our good-will our problems should be largely solved. If we don't, the losses for those people who do a poor job could be ruinous.

The future of the present large retail oil supplier in my opinion, will lie in his ability to adapt his operation to the new markets which are left open to him and particularly in his ability to hire, and even more important, to train and retain men who can sell gallonage as well as equipment.

Generally it is not too difficult to hire men of this caliber to do this job, but unless these men are properly trained, the mortality rate from men leaving before they accomplish any-

*President, Automatic Heating Corp. of Mass.

thing worthwhile, makes the cost of this venture prohibitive. It has been our experience that careful training plus a subsidy usually amounting to $1,000 to $1,500 is necessary before this type of salesman is self-supporting. Once this man has arrived at the point where he is producing anything like a satisfactory volume of business, we have had excellent success with paying an annual commission on all gallonage sold, for as long as he remains with our company and in addition to his salary or commission.

This builds up annually and the longer the man stays, the less likely he is to leave. This income continues coming along to his credit if he is obliged to stop work for reason of health, so in effect it eventually develops into a form of pension.

This type of salesman has to be backed up with direct mail promotion to all people who are changing addresses, since it generally is true that no oil salesman is ever self-supporting if he calls only on oil users who are not moving. These men must be supported by services such as the so-called Welcome Wagon, Dodge Reports or other services aimed at discovering new customers. Another important function of such a salesman is the contacting of apartment house owners, real estate management companies, commercial and other large users, where gallonage represented is usually substantial even though the margin is liable to be thin.

The Years ahead

In my opinion, the oil equipment volume and fueloil gallonage will continue to grow but at a declining rate for at least the next five years if not priced out of the market. The oil dealer for a certainty is going to be faced with an ever-expanding natural gas competition that will take an increasing amount of the new home market as well as substantial numbers of his existing customers.

The degree of loss largely will depend on the relative cost of gas compared to fueloil. In Boston the effect of natural gas has been felt very little by the oil companies up to this time. The gas people have proved themselves good merchandisers, however, and the fact that they are backed by what appears to be unlimited funds, is slowly turning the tide in their direction. Here again, the places where the gas companies have made the greatest inroads in New England are those localities where the gas is offered at a price somewhere near the cost of oil. In Boston Proper, where the Boston Gas Company offers mixed gas, that costs more than 40% more than No. 2 fueloil, their inroads into the fueloil business have not been serious.

No one should underestimate the value of advertising and salesmanship, but in the final analysis just how injurious natural gas will continue to be to the fueloil business, will, in my opinion, be governed almost entirely by what happens to the relative prices of oil and gas.

The large metropolitan dealer is further faced with myriads of small dealers who snipe away at his business by getting their friends and relatives, plus other customers on cut-price. Many of the customers that these small inexperienced dealers get are not held for long, usually because of poor burner service, or other troubles, all of which can and frequently do play into the hands of the gas companies.

Often this type of dealer is in trouble with credit from his suppliers, due to the loose extension of credit to his own customers. Many such dealers in our locality are forced out of business each year for this reason, but it seems that when one fails, three step in to take his place.

This condition is aggravated greatly by the policy of major and independent oil suppliers in selling at regular tank car price to dealers who do not have gallonage enough to keep one truck running. Many of these dealers carry on other jobs at the same time and consider this work a part-time winter job. It is said in Boston, that all anyone has to have to get the tank car price is a 275 gallon tank on a beach-wagon.

Certainly the small oil retailer is entitled to go into business if he wants to. But the policy of major oil suppliers in selling him at the same price as the larger operators who maintain a good service to their customers on a fair margin of profit, and who are the main stabilizing force of the fueloil retail industry is in my opinion wrong.

Because these very small operators usually provide little or no adequate service to their customers, they often give away ridiculous discounts to build gallonage. This practice results in the high mortality of new dealers, but their disturbing effect on the market is not small. I bring this up because the continued reckless policy of oil suppliers in selling anyone at the tank car price to build gallonage, in my opinion, does have an important bearing on the future of the oil industry.

In speaking of small dealers, I am not talking about the many small equipment and service organizations about which all of us know, and which in many cases render good service to their customers. These men build gallonage through the sale of equipment, and in my opinion should be sold at reasonable price.

What I am talking about are the so-called oil dealers who attempt to go out and pirate customers on price, when they cannot serve these customers adequately. These operators are increasing like mosquitos and are encouraged by oil suppliers who frequently extend unusual credit in addition to selling at the same price that the stable operator pays.

What can the Majors do?

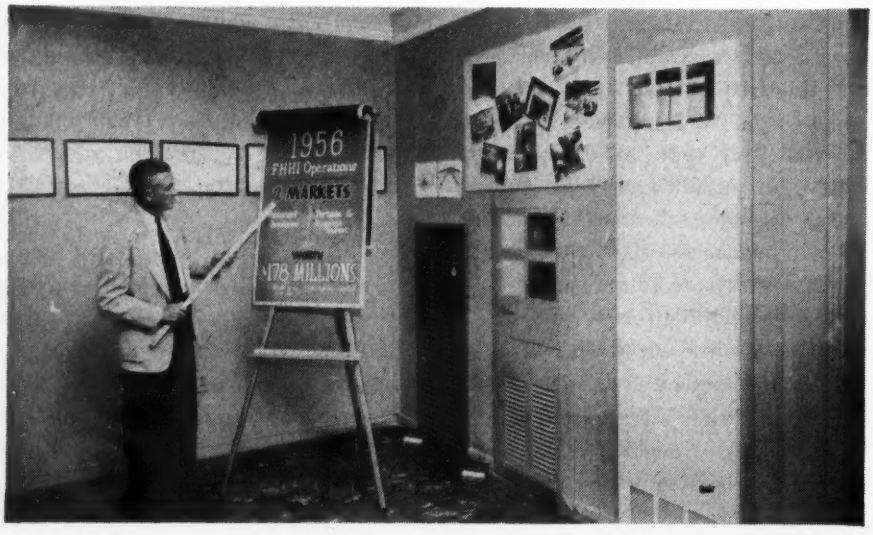
As to what the major oil suppliers can do for the retailer, I believe that there are many things they can do. Generally I believe the retailer in the East is considered a necessary nuisance and not too much attention is paid him except when it is time to sign him up for his next year's gallonage. Generally it seems to me that the problems of the retailer should be considered as common to both wholesaler and retailer, if this industry is to go forward on a sound and healthy basis and if major oil producers are interested in increasing the overall fueloil gallonage.

Obviously this increase must take place on the firing line at the retail sales level which is the reason why I say that the problems of the retailer and producer should be pretty much the same. As a suggestion, I believe

(*Please turn to page* 109)

Oilheating Promotion on a Slant

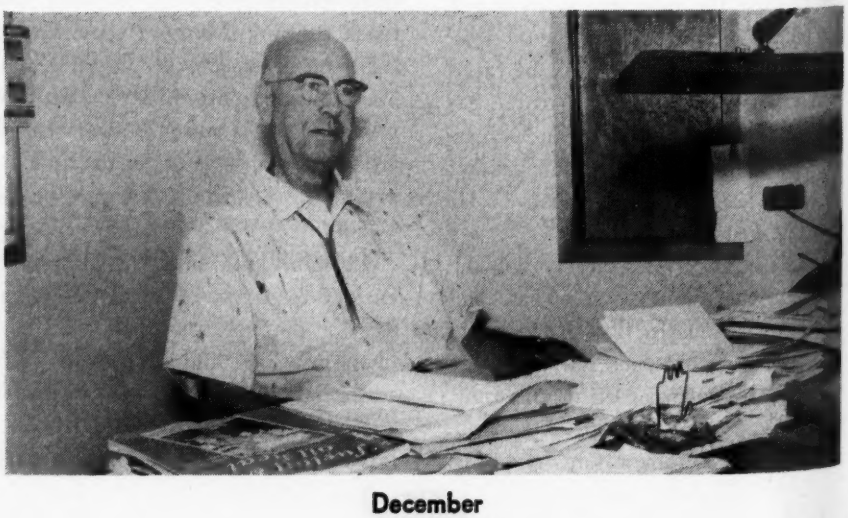
Florida Home Heating Institute promotes flame Heating to discourage Electric



B. E. Clark, *executive secretary of the Institute, with an easel presentation of this year's promotional campaign. This was in the directors' room at the rear of the display quarters and the occasion was the annual meeting on March 28 of this year.*

AT THE TIME of the Miami Beach convention of the Florida Oil Marketers in late September, the editor was down to discuss oilheating in the light of growing other-fuel competition. The convention was held in the lush Hotel Fontainebleau where the rates are workable in those off-season months, even for most publication men.

While in Miami, a day was spent looking into the much publicized Florida Home Heating Institute and its fine promotional work in selling oilheating. It also helps to sell LP gas heating but about three-fourths of the calls from the advertising campaigns are to discuss oil heat.



Edwin L. Shaw, *president of the Institute, is also head man for Fuel Oil Sales Co., a retail subsidiary of Belcher Oil Co. Back in the '30s he was in New York promoting fueloil sales for Warner-Quinlan, later absorbed by Cities Service.*

The Institute has 163 members in 30 cities making up the Metropolitan Miami area. They pay from $25 to $100 each and get far more than their money's worth because the big expense item, the advertising campaign, is carried almost entirely by the electric utility, the Florida Power and Light Co.

The genesis of the Institute was electric heating . . . not to sell electric heating but to keep people from using it by convincing them that flame type heating is better for them.

Miami and suburban areas have 800,000 population around the year. In the winter season they get an additional 300,000 sun worshippers. Most of the winter days are warm enough that the big stores and hotels keep their airconditioning plants going the same as in the summer. The large bulk of the older homes were built without heating plants.

But on the occasional days when the temperature dips, and the smudge pots take over the citrus groves, people need some heat. If they don't have oil or gas heat in their homes (there's no coal) they plug in small electric heaters, snap on the kitchen ovens and most everything else down to toasters.

This heating requirement while very short lived puts a mighty big load on the electric utility, one that it can't take without serious voltage drops and transformer troubles. The utility already has its peak demand in the winter due to the avalanche of visitors in the area so it has no reserve, or certainly not enough, to add much heating. To build more large generating capacity for only a few days annual needs would be economic folly, so the utility executives are out to sell oil and gas heat.

The picture on the facing page shows the front of the Institute's showroom located in a central shopping development with plenty of parking facilities for the visitors. The other photos tell most of the story.

Here are *representative shots in the beautiful show rooms. The cabinets on legs are catalog cases, covering all makes sold by the members. The group picture was a directors' reception on opening day, Oct. 27, 1955.*

Farm Oilheating through GLF

This rural Co-op sells at Market, services Burners, pays full Taxes

by
Robert Gray

THE SPREAD OF OILHEATING to farms and rural communities is nowhere better demonstrated than in the very significant growth of the fuel-oil volume of GLF in recent years. GLF stands for Grange League Federation, a substantial corporation operating throughout New York State, New Jersey and the northern tier of Pennsylvania counties. Not only does this rural co-op sell and deliver fueloil from its 66 bulk plants and 12 terminals, but it also services and sells oilheating equipment at 30 locations.

There's a lot of argument over the state of farm prosperity in the Nation today. Certainly there has been a profit squeeze as unsupported livestock has had to eat controlled price grains. Poultry, dairy and meat-raising farms are hit. But if a lot of farmers are discontented today, it's a vastly different sort of discontent from their feelings in the poor years of the 20's and 30's. For in the past 20 years their living standards have moved up to equal and often exceed those of typical urban dwellers.

Nearly nine-tenths of all farms today have electricity which means that they too can have modern automatic heating. Because of their scattered locations, not many have gas furnaces or boilers; many do have oil heat. Many more will get it, for the trend is accelerating very sharply.

The experience of GLF is probably an exaggerated example, for this is a very well managed organization, but notice that it first sold fueloil to its farmer members in 1938, and that eight years later in 1946 its annual volume had grown only to 1,318,000 gallons of No. 2 oil. But ten years after that, or in 1956, it reached 27½ million gallons.

That figure does not include kerosene or diesel fuels. Its 1956 sales of all petroleum products were about 112 million gallons.

When fueloil sales were small, little if any thought was being given to the care and efficiency of the oilheating plants in the farmhouses. But as they grew to man-size proportions, so did the complaints of improper operation or inadequate service through the customary rural channels.

GLF put off the day of going into burner service as long as it reasonably could but in 1954 decided that it had to be done. The problem here was that the co-op has always emphasized to its membership "Quality that pays off on the farm." Its fueloil was being criticized by some local mechanics as being the cause of service calls, which was just passing the buck for their own incompetence.

Some bulk plants handle as much as 1,152,000 gallons, others as little as 150,000. As a general yardstick, any plant that delivers 400,000 gallons or upward of No. 2 oil is expected to be able to support a good full-time burner service man. Thus 30 of the plants have one or more on the payroll. A few more are big enough to warrant having a service man and they probably soon will have. It's a matter of finding a good man or men in GLF and

GLF petroleum chiefs. *From the left, Ray Wolf, supervisor petroleum sales; R. B. Fitch, manager Petroleum Div.; Ellis Ross, supervisor sales and service all petroleum products.*

training him to perform the job.

The present service crew was largely trained from scratch by GLF and industry friends who are credited with helping a lot. At the start a group of men were given two weeks intensive training at an oilheating equipment factory. Then the service supervisor at the Ithaca, N. Y., headquarters has conducted a number of training classes.

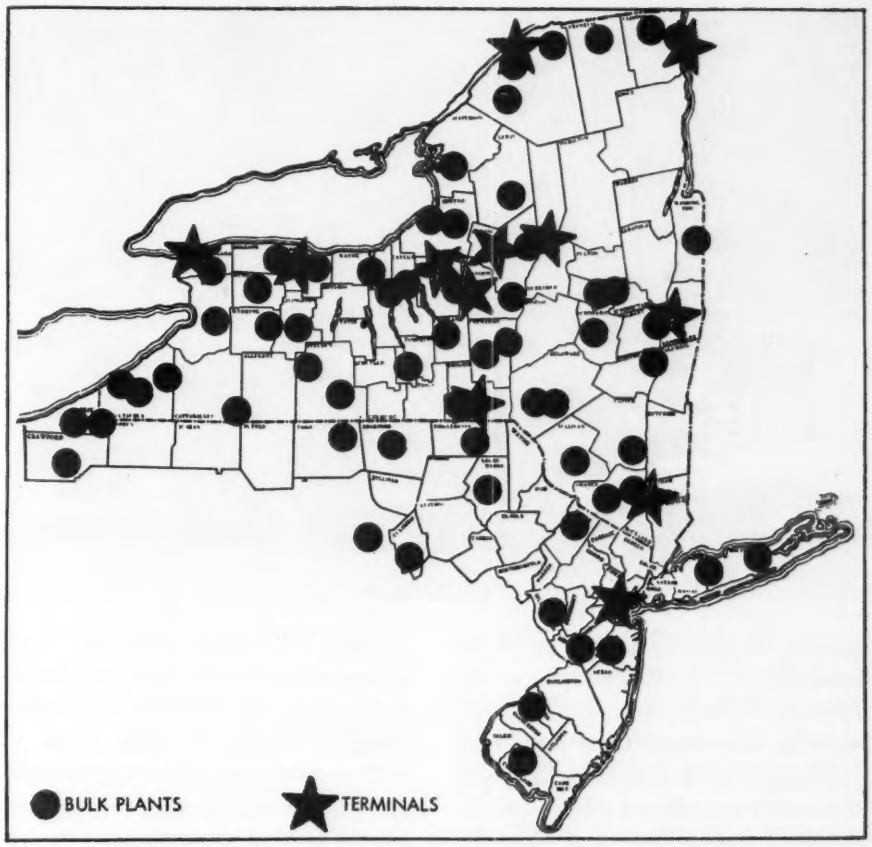
Ralph Dennis brought over to Ithaca his staff of the Boston School for advanced training, for teaching refinements. Also the oilheating management group at headquarters gives special credit to Joe Collins of Frontier Refining, Buffalo; Tom Walsh of Rood Utilities, Auburn, N. Y.; John Straitz, National Airoil, Philadelphia, and to Gordon Chapman, Lynn Products Co., Lynn, Mass., for a lot of helpful advice and continuing counsel on service activities.

GLF sells oilheating equipment in each of the spots where it has established burner service, the principal lines being Lynn and National Airoil. However, as Ray Wolf, supervisor of petroleum sales, has pointed out, the buyers are practically all GLF stockholders and they are inclined to look on anything they buy as a GLF product regardless of its original brand name.

The same is true of the fueloil itself, which until recent times was bought from quite a number of refiners. Today 85% of the oil comes from the Texas City Refining Co., which is jointly owned by GLF, the Pennsylvania Farm Bureau and the Southern States Co-op. It's a 30,000 barrel a day unit with modern cat cracker and has under construction the latest variety of platformer.

In its distribution of fueloil some of the company's plants have enough volume to use separate trucks for this one product . . . in fact the majority of the volume goes out that way. In thinner spots the typical farm route trucks are used, hauling more than one product in compartments and dispensed through separate lines to avoid contamination.

Degree-day delivery methods are not used; rather a route system has been adopted, but naturally this is controlled somewhat by the severity of the heating season so that "No one ever runs out of oil."

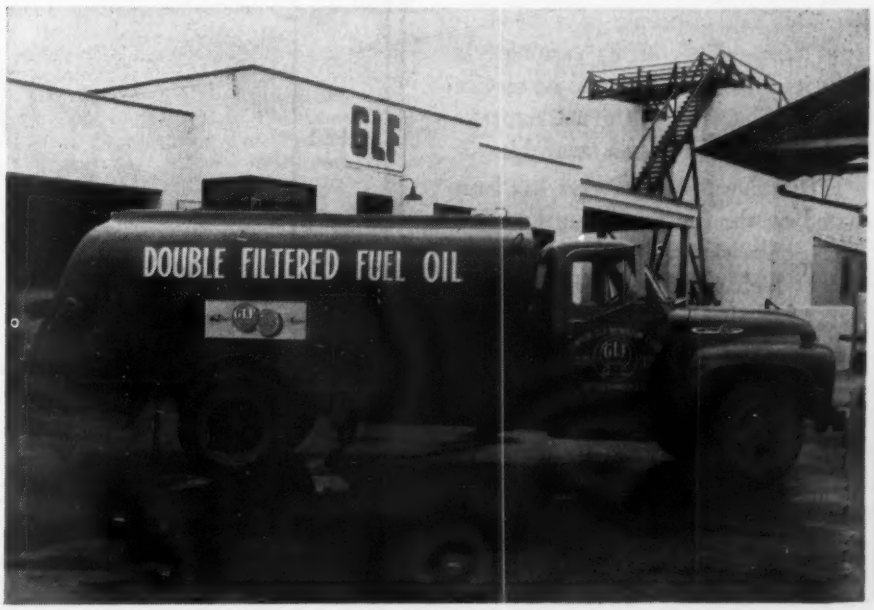


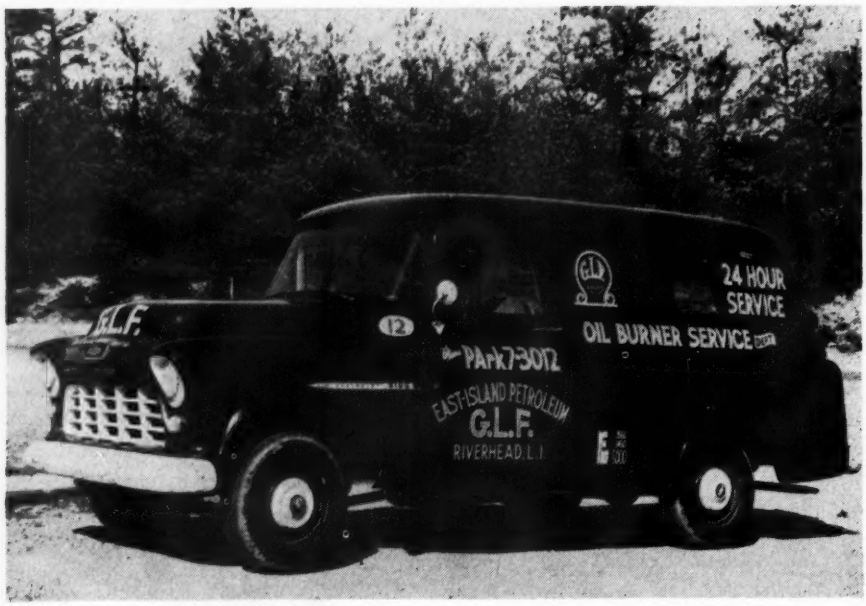
GLF marketing area, *showing the location of its 66 bulk plants and dozen terminals. Most of its fueloil comes by tanker from Texas City and is then dispersed from its deep-water terminals.*

Demonstrating its keen interest in the advancement of oilheating, GLF is helping to finance the local co-operative oil heat advertising campaigns in markets where it has enough nearby business. Specifically, the company is helping the Rochester and Long Island programs in this way.

It is not necessary to be a stockholder to buy anything from GLF. But only farmers can own stock and get the corporate dividends. In its 35 year history up to last year the company had paid out in patronage refunds 1.1% of its gross sales.

Founded in 1920 at Syracuse by the New York State Grange, the New York State Farm Bureau Federation





and the Dairymen's League under the leadership of H. E. Babcock, a professor at Cornell University, the headquarters was moved three years later to Ithaca to work more effectively with the state's agricultural college and experiment station located at Cornell.

Today GLF also works quite actively with Rutgers University in New Jersey and with Penn State in their farm advancement projects . . . mostly having to do with improved farm practices, new crop varieties, livestock feeding methods.

Thus the farmer-stockholder of GLF is an integral part of this work toward better farm economics and better farm living; GLF to a degree is his club, more or less his trade association.

Curiously, GLF operates just like any other corporation of its size, hires the same kind of people, pays the identical taxes—52% of its earnings. It sells its fueloil, its burners, its service at the going rate for the market, tries to make them the best available.

The value of GLF always has been based on the use farmers make of it. If its oilheating volume continues its recent high growth rate it will indicate more than ever that farmers like what they get through GLF.

❖

Eric Denman, West Toronto, Ontario, named Canadian representative for Acro precision switches and Crise controls, made by Acro Mfg. Corp., Columbus, Ohio.

Cecil W. Roberts, Asheville, N. C., appointed direct factory representative in Georgia and Tennessee for Boston Machine Works Co., Lynn, Mass. He will contact wholesale heating concerns in the area representing the BosMaco line of oilheating supplies.

The J. Edwin Aspinall Co., through its main office in Indianapolis and a branch office in Fort Wayne, Ind., is now representing the Pacific Steel Boiler Division, National-U. S. Radiator Corp., Johnstown, Pa., throughout Indiana and southeastern Illinois.

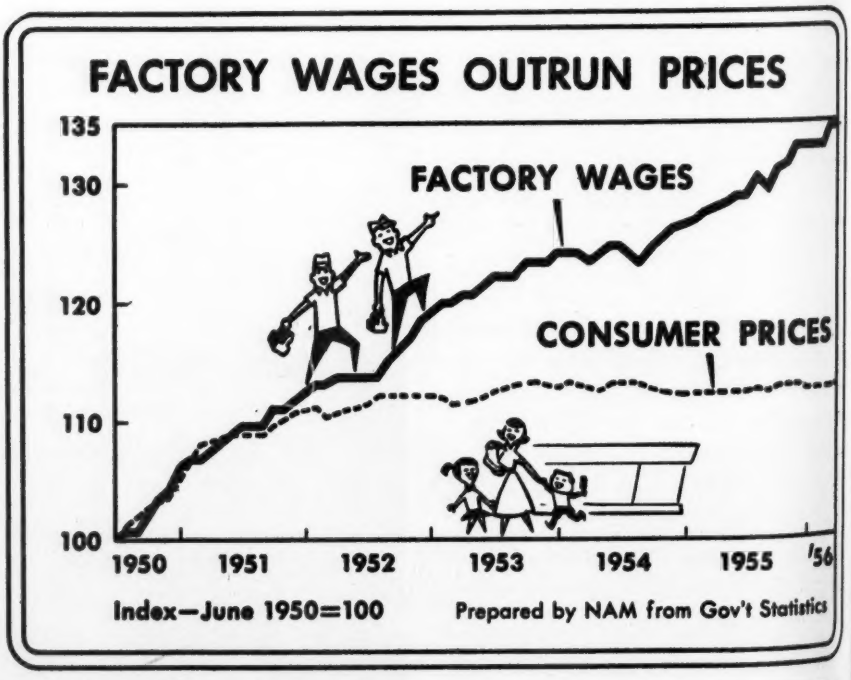
Anthracite Institute makes fuel cost Comparisons

IN A VISIT to the National Housing Center in Washington one of the displays encountered was that of the Anthracite Institute. On one of its large panels it displayed a series of cost comparison estimates for the principal fuels in six eastern cities.

Using as an efficiency guide the University of Illinois' Small Homes Council Bulletin G35, and using prices of May 6, 1956, these were the estimated costs of automatic heating in a typical 6-room house:

	Oil	*Gas*	*Coal*
Springfield, Mass.	$175	$245	$126
Providence, R. I.	170	280	128
Elizabeth, N. J.	167	259	102
Trenton, N. J.	175	189	112
Rochester, N. Y.	185	217	115
Allentown, Pa.	185	266	100

The Anthracite Institute has the only coal heating exhibit in the housing center. Oilheating has only one unit on display, an oilfired boiler by Crane Co. Seven companies display gas heating units and three companies feature electric heating. Among the seven plants showing gas heat equipment, six of them also make and sell oilheating but they did not display any of it for the builders to study.



Prosperity *is always relative. When wages rise faster than consumer prices, there's more money around to buy the refinements of higher living standards . . . like oilheating.*

Consumers talk about Fuels

Study No. 1 in OHMR *Markets*—HARTFORD, CONN.

HAVING PREVIOUSLY developed Market Analysis background on home heating for some 37 key areas across the country, Oil Heating Market Reports, New York, has now come out with its first consumer Attitude Study, revealing householders' opinions and attitudes on home heating. This is the first in a series of such surveys planned by OHMR.

Greater Hartford, Conn., comprising Hartford and 18 surrounding communities, was the subject of this pilot project conducted by OHMR in co-operating with the Better Home Heat Council of Connecticut. Employees, 13 in number, of member firms did the actual interviewing by telephone.

Some 500 consumers were chosen at random from telephone directories (apartment house dwellers were excluded) and 316 completed questionnaires resulted in some interesting facts and attitudes.

The consumers responding showed the following characteristics: 82.7% were homeowners; 17.3% renters. Average length of residency was nine years and five months. Property valuations ranged from $4,000 to $20,000 with 48.4% living in homes valued at $15,000 to $20,000; 28.2% valued at $8-$15,000; and 2.0%, $4-$8,000.

OHMR'S report cautioned that natural pride may have inflated these values a bit as the estimates were the homeowners' own measure of worth.

The average size of family in the study was 3.66 persons, statistically speaking, that is. And this average family (which is a little larger than the national average of 3.28 in 1953 and slightly smaller than the rural household of 3.89) lives in a six room house.

In an area where oilheating predominates it is not surprising that fuel in use in centrally heated homes showed up as follows: 87.8% use oil; 5.6%, gas; 6.6%, coal.

When these responses were first analyzed they seemed to reflect a preference for oil heat too predominantly, but after receipt of all responses they checked out very well against the initial Hartford Market Analysis.

	OHMR "Market Analysis"	OHMR "Consumer Attitude Survey"
Oil	79.4%	87.8%*
Gas	5.3	5.6*
Coal	15.3	6.6*
Total	100.0%	100.0%*

*(adjusted to include only central heating.)

It would seem that coal should be higher in proportion to oil usage. However, the sampling was done in highly urbanized areas where there is less coal, and coal is continually declining, therefore, the discrepancy beween the two ratios seems to be justified.

In the area boilers are in use among 62.3% of all the respondents; furnaces, among 33.2%; stoves, 3.5%; and space heaters, 1.0%.

Under the section dealing with fuel preferences, all of the time-honored reasons for preferring oil for heating were given.

Most desired heating benefits were "even heat," "economy," "cleanliness," and "convenience," in that order. Oil heat, as to be expected from its predominant use, was voted best on each of the desirable characteristics.

Nearly 50 people stated that they had switched to another fuel from that used originally in their homes. Some of the reasons for the change were convenience, cleaner, less work, no shoveling, no fumes, comfort, furnace gave out, noise, even heat, house converted, tired of mess, different stove and economy.

Consolidating these reasons into fewer categories showed this pattern: Of the 39 people who gave specific reasons for switching to oil 19 did it for greater convenience; ten wanted the cleanliness associated with automatic oil heat; four wanted more comfort; and six gave other reasons.

Of the three switching to gas two did so because of the convenience; and one for cleanliness.

This breakdown shows quite clearly that the economy appeal is quite impotent as a reason for changing to another fuel.

There were two switches from oil to gas: one user changed because of a "special deal" and the other because he felt gas was cleaner.

By far the large majority—two-thirds of those responding—specified oil heat as the choice for future use, even in a new home. However, gas heat shows growing strength.

Future Fuel	*No. Choosing*	*%*
Oil	222	79.0%
Gas	46	16.4
Coal	3	1.1
Electricity	10	3.5
Total	281	100.0%

Most of the consumers were satisfied with their present heating system. Only 2.9% of the fueloil users were dissatisfied; 23.5% of the coal users were unhappy; and none of the gas customers was dissatisfied.

An interesting point here is that there is considerable evidence that many of these people with proper persuasion could be made dissatisfied. Other questions brought out some complaints. In the future, questionnaires will bring out the complaints more directly to measure dissatisfaction more truly.

When queried as to how the different fuels rated in specific qualities, the rankings showed up as tabulated in the table below.

Consumers were asked if airconditioning was desired in a new home. Of the 237 replies to this question, 159 or 67.1% said they would want cooling; 63 or 26.6% would not, and 15 (6.3%) didn't know.

The most intriguing aspects of the survey are the sections, "Advertising Impact" and "Fueloil Pricing." In an era when much emphasis and large budgets are placed upon consumer advertising the findings in this survey could be a bit disconcerting.

Actually, it points up the need for more effective promotion effort. Only one third of those interviewed said they had noticed any advertising for any fuel with such awareness as was reported fairly well divided between fueloil and gas. The ratios among those remembering some fuel advertising were: oilheating, 43.4%; gas, 52.5%; and coal, 4.1%.

This is more interesting since the gas industry has been conducting an energetic advertising campaign in this area for three years, with the oilheating industry matching that intensity only in 1955.

The survey succinctly concludes that "There is probably a fair degree of subconscious impression being made, as suggested by fairly marked opinions on the relative merits of various fuels, choice of future fuels, and points desired in good heating systems."

This survey gives credence to a generally held industry opinion that most oilheating customers do not know exactly what price they pay per gallon for their heating oil. And, no doubt, they feel it worth while to be comfortable. Some 65.1% of the fueloil users could not give the correct price of oil.

Surprisingly, there was little difference in this instance whether the respondent was a man or a woman. About a third of the ladies were correct in their fueloil price estimate, and two-fifths of the men.

Based on the answers to the question of annual costs the survey reports the average annual cost for oil heat was $181.00; gas, $247.00; there were no figures on coal. These figures are substantiated by the OHMR survey made previously at the industry level in Hartford. Some cooking and water heating are included in these figures.

Gas users were in the main satisfied with their service and supply and with the cost of operating their heating plants. A few questioned the economy. Gas burner service charges are included usually in the cost of the fuel.

Electric heating is making little impression among consumers. Only 3.5% of all replying stated electric heat would be their preference for a new home. Among coal users, their was for automatic heat (only two had stokers), principally oil heat with gas heat well behind.

For a first effort in this direction, the survey is altogether competent, conscientious, and representative. OHMR modestly points out that the survey form is subject to further refinement for future use.

	Total Opinions	*Oil*	*Gas*	*Coal*
Cheapest	243	75.3%	9.1%	15.6%
Healthiest	237	82.3	14.3	3.4
Cleanest	252	72.2	24.6	3.2
Safest	246	81.3	11.0	7.7
Most Comfortable	256	82.8	12.5	4.7
Most Convenient	250	80.4	17.6	2.0
Cheapest Heating Equipment to Buy	145	69.0	13.8	17.2

Getting along with Women

It pays to understand the woman oilheating Customer and give Her what She wants

by

Kirk B. Shivell*

HOW MANY of you reading this like women?

Well, naturally. Now, how many of you understand them?

That seems to be natural, too. Yet we had better understand them if we hope to sell to them successfully. And you can be sure that unless a woman is sold on you her husband's name isn't going to be on your customer list, no matter how much he may like you.

Petroleum as an industry has been remarkably remiss in the attention it has given to women. For a long while, some types of businesses have flourished and prospered by studying the desires and dislikes of women, yet it has been only in recent years that the petroleum industry has begun to give much consideration even to the millions of women who buy gasoline. Fueloil marketers are only commencing to realize that this is largely a woman's world.

Certain oilheating equipment manufacturers and large fueloil marketers are today making much better appeals to the feminine audience than formerly, but taking the field as a whole, there is still a long way to go before the industry approaches the deftness displayed in numerous others. To be sure, a successful fueloil retailer usually has sufficiently good instincts and manners to keep women customers at least passably contented, but this hardly is the same as systematically creating enthusiasm.

To begin with, it is altogether likely that you will sell more equipment and gain more fueloil customers if you think in terms of selling the woman in the house more than the man. In preparing your advertising and making your selling approach, it pays to focus your thoughts on Mrs. Housewife, not merely on her breadwinner.

In most homes today the husband leaves household decisions to his wife. She long has been the one who says what refrigerator, stove, or washer will be bought. Her influence is growing and now she says more about what automobile and what heating equipment the family will have.

When you address yourself to the little woman you are reaching the one who usually is around to read or hear what you have to say. If you advertise in your local paper, she's the one who probably reads it first and most thoroughly. If you use direct mail, who do you suppose is home and opens it? If she likes what you have to say, she'll tell her man about it; if not, your message may be in the wastebasket before he gets home. When one of your salesmen makes a call who usually answers the phone or doorbell? Sell her and probably all you'll have to do with the husband is wrap up the details.

When your men go out to sell, let them bear in mind that women are emotional but intensely practical. It's likely to be a waste of your time and breath to extol the mechanical features of your heating equipment. A man may be entranced by them, but a woman's thoughts go directly to the heart of the subject: all she wants to know is what something will do for her.

She's not really interested in any kind of oilburner as such; she begrudges the money that has to be spent on fuel. What she does want is life that is pleasanter and easier . . . a home that is more gracious and admirable . . . an atmosphere that is healthy, clean and safe. The thing to do, then, is concentrate on convincing her that you can provide all these things better than anyone else.

Women are emotional, practical—and skeptical. Every woman knows there are men who will say or do almost anything to win a woman's favor, then neglect her after it's won. So prove to her that you are different . . . that you not only promise her more but will deliver it . . . and that with you she will live happily

Servicemen *should be especially careful of their deportment since they must go into the house and women have a natural apprehension about admitting a strange man. It's important for the serviceman, too, to be neat about his appearance and the way he leaves the job after his work is done.*

*The Shivell-Hall Co., 501 Fifth Ave., New York, N. Y.

ever after. Convince her that you are more willing and eager to care for her than anyone else and it's more likely she'll say yes.

Anything you tell a woman about your facilities and methods may impress her only to the extent that it makes her feel that it's practically impossible for her ever to be neglected. And don't rely on your word alone to persuade her; she'll be greatly influenced if you also use references or testimonials of neighbors.

Convince Her She's Important

A woman wants to feel that she is important. So make her know that she is important to you. In particular, be persistent in your efforts to win her. A man is likely to consider a proposal, say yes or no about it, and regard the matter as closed. A woman, though, is likely to say no, but expect to be asked again. Respectful persistence pays off . . . it helps to convince her that she is important to you, that you mean what you say and that you will be faithful in pleasing her. It doesn't matter to her how big and important you are in town, it's how big and important she will be to you.

A woman wants to feel secure. She doesn't want to put her trust in someone who may have the most sincere intentions in the world, but who is incapable of carrying them out. So you must impress her with the fact that, among other things, you are competent. Be courteous and deferential to her, but also be solidly businesslike. She wants good value, but she doesn't have respect for a man who wobbles around in the matter of price. She doesn't care essentially about the nuts and bolts of heating, but she does want direct, understandable answers to any questions she may have. She wants to get the most, but she won't have confidence in a man who seems to promise the impossible.

And once she becomes a customer, this is just the beginning. Unless you continually convince her that she is important to you, and that you are taking good care of her, you might lose her at any time. She forever needs to be shown. It's not that she's usually fickle—far from it. Rather, she's inclined to remain firmly loyal until she feels neglected, and even then, may not suddenly make a change. But let one incident of neglect too many occur and she'll leave you like a flash. Or let some appealing competitor go knocking on her door when she is feeling displeased and off your books she'll fly. (Don't discount the chance in this period of increasing competition there is likely to be more such door-knocking by your competitors.)

One of the surest ways to cause disaffection in a woman is to display untidiness. We all know it is difficult for drivers, servicemen and trucks to be always immaculate, but some are more neat and attractive than others.

The cleanliness of your equipment and of your men, and the way they do their work, have a lot to do with a woman's impression of your entire company—and whether she enthusiastically wants to continue doing business with you. Soiled hands are especially offensive to many a woman, especially when they are thrust toward her with a ticket she is asked to sign. Since it's practically impossible for a driver or serviceman to have tea-party hands, the simple solution to the hand problem is the one thought up long ago: supply your men with white cotton gloves to slip on before approaching the customer.

Courtesy expected

Women have a right to expect a great deal of courtesy and it is much to the credit of drivers that most of them display it. A lot of the good will many companies enjoy is due to the good manners of their drivers. But here is a tip for drivers: when you go to the door for a signature, don't merely tip your cap and say, "Good morning." Introduce yourself, also. Say, "Good morning, Mrs. Smith, I'm Dave Brown of Hometown Oil. I've just put 200 gallons of oil in your tank." There's a difference between perfunctory courtesy and friendly courtesy.

A woman appreciates friendly courtesy, but she will strongly resent familiarity and is quick to be supicious of any hint of the latter.

Servicemen should be especially careful of their deportment since they must go into the house and women have a natural apprehension about admitting a strange man. A serviceman should always try to park his truck where it can be seen by a woman before she opens the door, should introduce himself by name and not go into the house until the woman says, "Come in." Once inside the house, he should be courteous and friendly, but say as little as possible. Too much conversation may be construed as familiarity.

Explain service Work

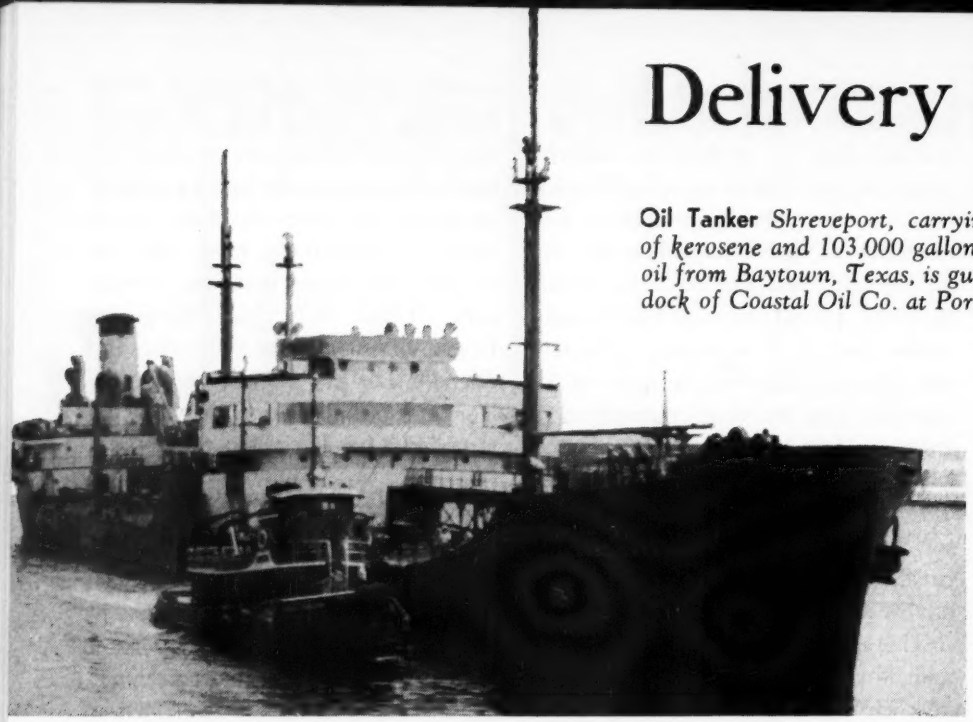
One thing the serviceman should tell the housewife, though, is what was wrong with burner and what he did to it. Woman's curiosity is no myth. She wants to be let in on things. So the facts should be explained in few words and non-technical terms.

While drivers and servicemen are the company representatives most usually seen by a customer, it gives a woman a feeling of greater confidence, security and importance if she is acquainted (if only by mail or telephone) with at least one important executive in the company. She likes to feel that he is keeping an eye on the way she is served and that she can call on him anytime she needs to.

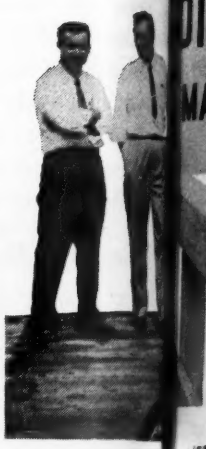
As you no doubt have learned the hard way, women dearly love to receive little attentions. The Christmas card, the calendar, the "thank you" letter you send out are probably much more appreciated by your women customers than by their spouses. But no attention pleases a woman so much as the one that is a surprise. The occasional pot holder, thermometer or shopping list probably won't cost you much, but can greatly increase her enthusiasm for you. The fueloil man who first thought of sending out an original Mother's Day card had an inspiration of sheer brilliance.

It pays to take every opportunity to show deference to the feminine customer. It's all right to address the bills to "Mr. Robert Smith" but any other communication might better be addressed to "Mr. and Mrs." Bob Smith may think you're a great guy, but if his helpmate doesn't think so, too, his opinion isn't going to help you much. She'll get what she wants —doesn't yours?

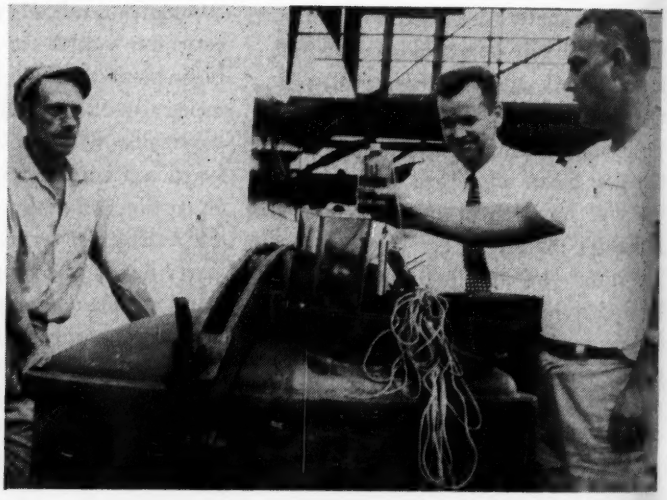
Delivery by Tanker



Oil Tanker *Shreveport, carrying 16,000 bbls. of kerosene and 103,000 gallons of No. 2 fuel-oil from Baytown, Texas, is guided by tug into dock of Coastal Oil Co. at Port Newark, N. J.*

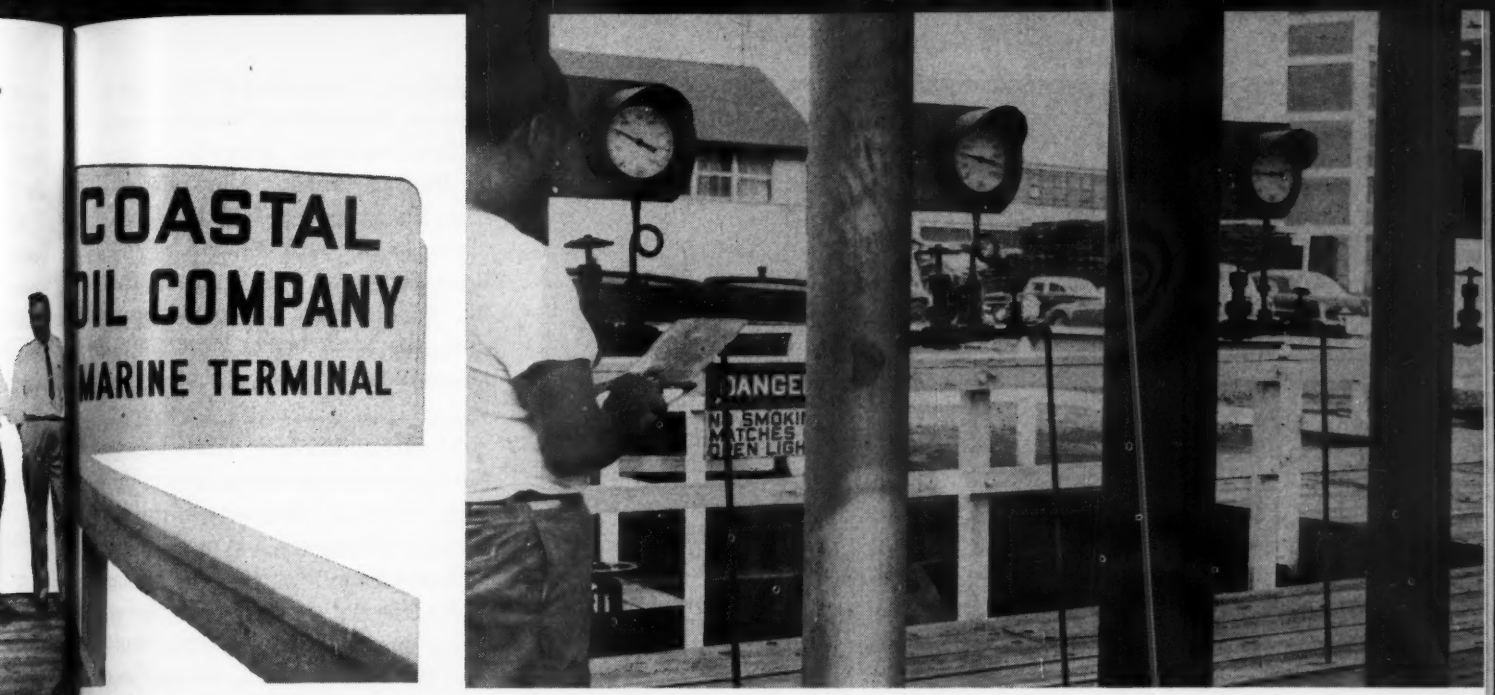


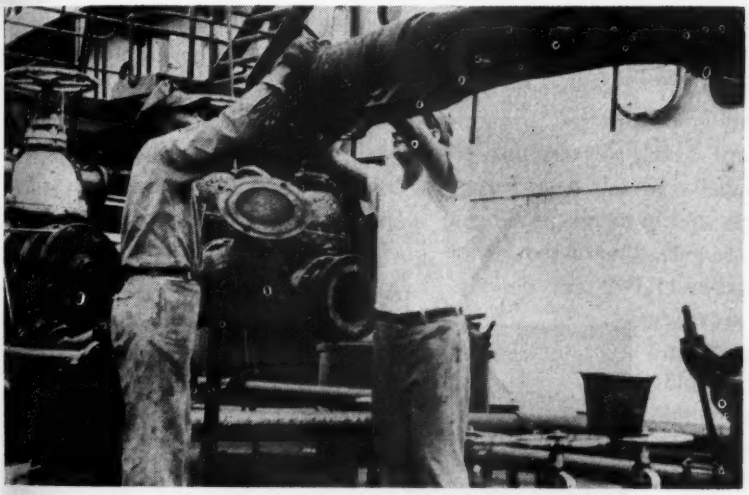
Surveying *unloading operations at Coastal's Marine Terminal, right, are Donald J. Ellis, left, assistant operations manager, and J. W. Lang, Jr., sales manager.*



Checking *before oil delivery is made, Don Davis, above, measures oil level in storage tank. Tanks are checked daily whether delivery is being made or not to give data on amount of oil taken from tanks each day. These reports, when compared with meter readings on amount of oil delivered into Coastal customers' trucks, give double check on gallonage trucked from terminal. Right above, tanker's cargo is checked before being unloaded. Don Davis of Saybolt & Co., Elizabeth, N. J., which does Coastal's testing, examines sample of No. 2 fueloil for water content.*

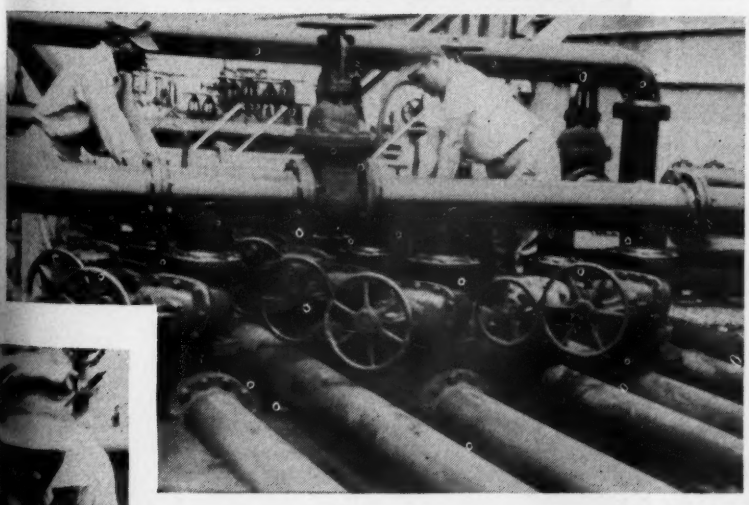
Hose *from hose-rack on dock, right, is lowered to tanker. Electrically driven winch on dock handles dock end of hoses. Aboard tanker, hoists and lines support hoses to keep them straight and away from deck.*

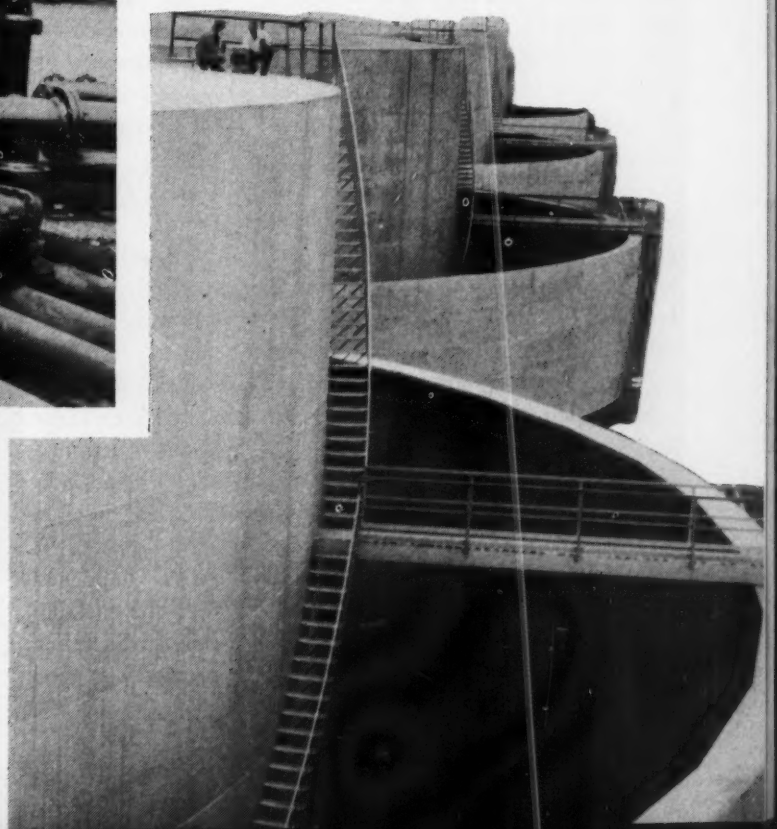




Pressure gauges *on hose-rack at dock show pressure at which oil is being sent to oil storage tanks. Total capacity of terminal tanks is 771,000 bbls.: 617,000 for No. 2 fueloil; 140,000 bbls., No. 4 fueloil; 14,000 bbls., kerosene. Coastal Oil, which sells to dealer accounts only, also handles No. 4 low-sulfur industrial fueloil.*

Delivery to fueloil trucks is made at loading rack at the rate of 400 to 500 gallons a minute. A 4" line usually is used. Accuracy of oil meters which report on truck loadings is checked periodically by the outside engineering company of E. W. Saybolt, which also does cargo tests for Coastal.





Hose from dock *to tanker is coupled to tanker valve, upper photo above, after flanged valve cover has been removed from tanker line. Immediately above and at left, workmen on dockside open valves to permit oil from tanker to flow into storage tanks at terminal. Battery of storage tanks, right, has new feature: encircling each tank is steel fire wall, also a safeguard against tank leaks.*

Motel Comfort

Shoreline Lodge Percoflash Installation features forced water for Heating and Cooling

by
V. M. Douglas

"ALL IS NOT COFFEE that perks" might also be a suitable title for this story of modern heating and cooling.

The change in status of both hotels and motels is well known to all who travel, and in this day and age, who does not travel. Not so many years ago hotels were listed as such if they provided a nights lodging. Anything from the lowly rooming house to the metropolitan palace was entitled to display a "hotel" sign.

A few years ago, what started as low priced lodging accommodations with a variety of names such as cabins, Auto Court, Tourist Court, Autel and others, began to develop as competition for hotels. "Motel" began to be recognized as the name of a place where motorists could obtain hotel facilities without the inconvenience of fighting downtown traffic and finding garage space for their cars. Now we find in some cases that Motels have become "Lodges" and "Garden Hotels." Some even become well known by descriptive names without reference to their advantages for providing comfort for their guests.

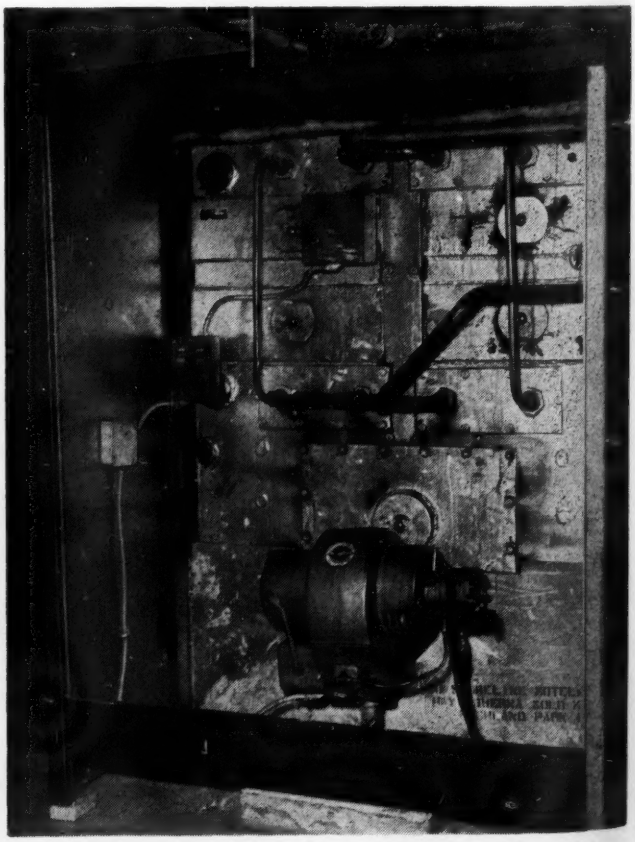
Comfort has been a contributing factor in determining the rate of advance or superior status of both hotels and motels, or perhaps it should be said, comfort and entertainment. At various times, in different districts, motorists have watched for signs which proclaimed "Steam Heat," "Innerspring mattresses," "Hot & Cold Water," "Radio," "Television," "Airconditioned," "Telephones." And so the parade of progress has continued until hotel corporations are building motels. Motels have become big business, and in many cases, being of more recent construction, their modern airconditioning is proving tough competition for the grand old hotels which are difficult to reconstruct to provide equal comfort.

For several years there has been an increasing number of window type air conditioners appearing in both hotels and motels. From here on there will be no further comparison of hotels and motels, for the system installed at Shoreline Lodge is designed for both and indicates the progress being made. It just happened that the installation at Shoreline provided a good opportunity to present this system to our readers for what it may be worth.

Shoreline Lodge, designed by Jones & Duncan, architects of Highland Park, Ill., owned by Mr. & Mrs. Ruben Olson, located at 3330 Skokie Valley Road (Highway 41) Highland Park, Ill., has heating and plumbing installed by M. J. Nantz Plumbing and Heating, 588 Bank Lane, Lake Forest, Ill.

The airconditioning system incorporates a Percoflash oilfired boiler, three 5-ton Unarco refrigeration units, a water cooling tower, 2 Percoflash room airconditioners in each of the 16 units and additional units in the lobby and living quarters, and 3 water circulating pumps. The system features forced water circulation for both heating and cooling.

The Percoflash boiler, manufactured by Westcott-Alexander, Inc., Madison, N. J., utilizes the principle of the well-known coffee percolator. The all steel boiler of welded construction employs several flat heating surfaces with water from the lower surfaces pro-



Percoflash *oilfired boiler installed in Shoreline Lodge (top of page). Boiler's jacket has been removed to reveal the connections to tankless water heater and to show the gun type oilburner which fires the unit.*

jected upward to upper flat, shallow heating heads by vertical tubes in geyser fashion.

A submerged tankless water heater supplies adequate hot water for the 16 rental units as well as for the two baths and kitchen of the owners. A conventional pressure atomizing type oil-burner controlled by an Aquastat keeps both domestic and heating hot water constantly available 24 hours a day.

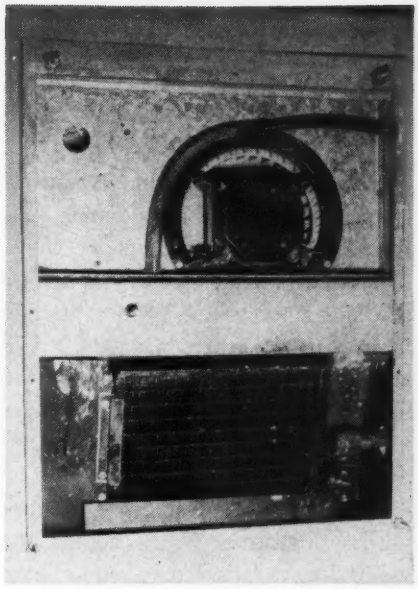
Each rental unit has two Percoflash airconditioning units. Each consists of a finned type radiator or heat exchanger, a variable speed motor driving a silent multi-blade fan which draws air from the room through an air filter and forces it through the heat-exchanger into the room. The grille is of the diffuser type with louvers designed to draw cold air from the floor level and project it upward through the top half. The grille projects approximately one inch into the room. Copper piping is concealed in floors and walls.

The basic combination system for heating and cooling consists of the boiler and recessed room airconditioners, already described, plus a water chiller and circulating pump to handle the requirements for summer cooling.

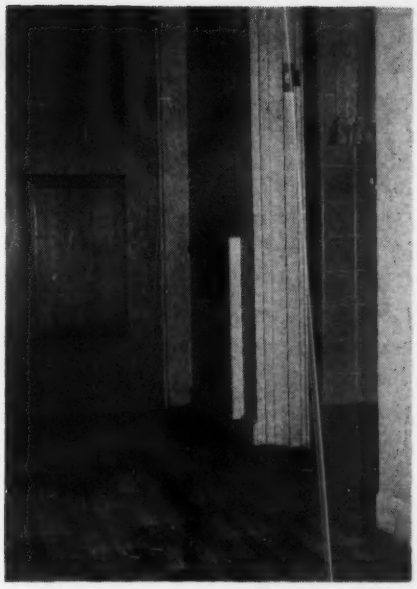
A knob, similar to those used on radios is operated manually by the occupant of the room. Turning it clockwise from a position indicated as "off" through any of nine numbered positions to "high" operates the fan at any speed to provide the amount of heat desired. The switch which closes the circuit to the circulating pumps also opens and closes the circuit to the air-conditioning motors, so the motors in the units will not operate unless the chilled water circulating pumps are operating.

One unit in each room is located between the main room and the bathroom. An outlet, with control damper, extends into the bathroom, thus pro-

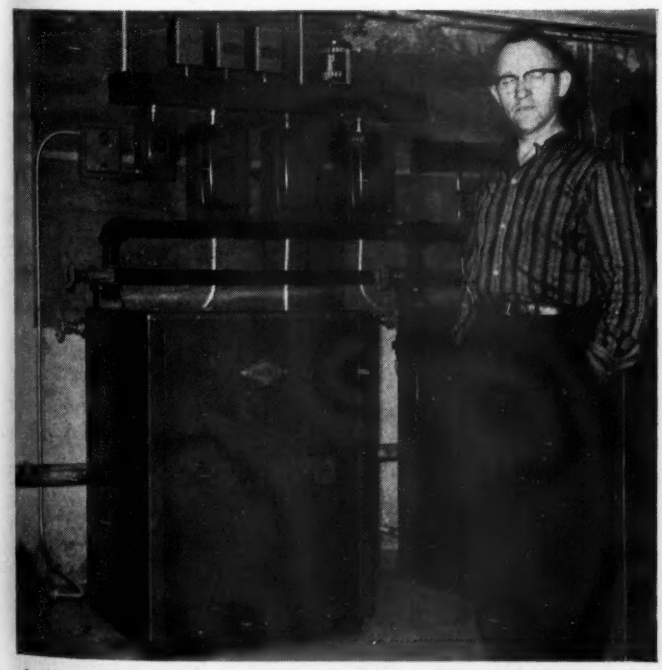
(*Please turn to page* 126)



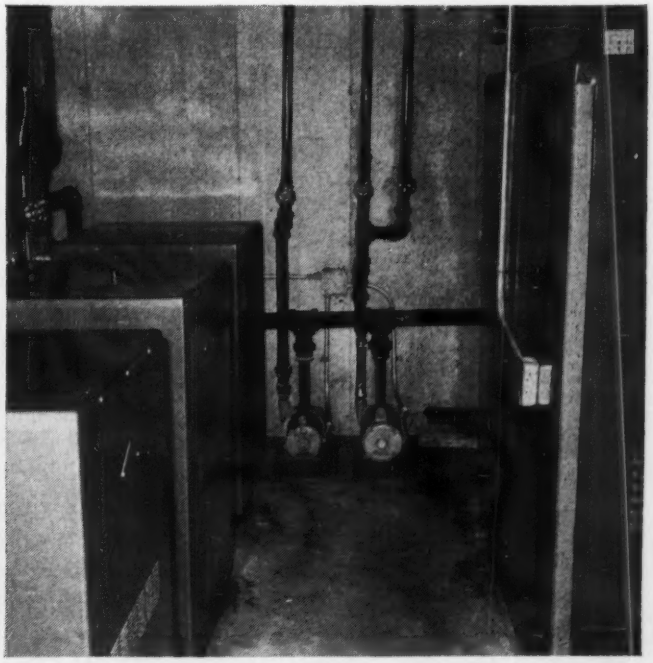
Percoflash *room unit with filter removed from bottom to show the motor and blower. The unit uses hot water during its heating cycle; in warmer weather cooling results from circulation of chilled water.*



Location *of one of two Percoflash air-conditioning units installed in each room. Main supply of air flows into the room, while a second outlet at top deflects part of the heat into the bathroom.*



Left: *Ruben Olson, owner of Shoreline Lodge, stands beside one of three 5-ton Unarco refrigeration units which provide chilled water for cooling. A circulating water pump can be seen at the lower left.*



Right: *Three 5-ton refrigeration units installed in a line. The other two circulating pumps appear in the center of the picture. One side of the boiler is at the right.*

Payments made easier

Fueloil Budgets—a positive sales, operating, accounting and financial Program

by
F. Raymond Kraemer

THE BUDGET PLAN for fueloil sales is an essential factor to successful operation and the dealer or distributor who does not have such a plan should lose no time in making it available to his customers.

We have had experience with fueloil budgets since their inception about 15 years ago and out of this have come to recognize the possibilities of merchandising with such a plan.

It is my recommendation that the fueloil marketer make the budget plan a positive sales, operating, accounting and financial program for his business.

From a sales standpoint, the fuelol budget makes opportunity for the petroleum marketer to be competitive with other fuels, the marketers of which have for a long, long time given their customers the advantage of monthly payments, and in the case of some utilities bi-monthly payments. Widespread institution of the fueloil budget plan would be in the general interest of oilheating promotion.

Customer Losses drop

Our experience has been that the fueloil budget customer is most likely to remain with his supplier; the lost account record is at a minimum with the budget accounts, and the sales cost per account consequently is reduced. It is a means of increasing and retaining business.

In the operating phases of fueloil distribution, the automatic delivery possibilities with budget accounts make the plan worthwhile even if they were not many other advantages. The "minimum number of stops, maximum gallonage delivery program" can be carried to greatest efficiency through the budget plan.

From an accounting standpoint, the fueloil budget plan presents many opportunities for time saving. The budget account requires a statement only once a year, at the conclusion of the budget period. The debiting and crediting of the accounts receivable ledger is reduced to a minimum, as is the general handling of paper work.

The financial possibilities of budget accounts is, of course, of most specific interest to the credit manager. It is a matter of experience with us that the fueloil marketer becomes a better payer to his supplier through a properly applied fueloil budget program.

We have had opportunity to work with a number of plans and the one we find most satisfactory requires ten monthly payments, with first payment due on June 1, the final payment due March 1.

Why this Plan?

Outstanding advantages of this plan are

(1) Customers' payments during June, July, August and September create a fund for the marketer which assists materially in meeting his commitments to his supplier.

(2) Sufficient credit balance is accumulated on almost every account so that at no time during the heating season does the amount owing by the budget account assume any great proportions, thus minimizing total investment in accounts receivable in relation to sales.

(3) The collection problem is reduced. Our experience is that budget accounts pay quite well. Of course, good judgment must be exercised in opening a budget account, the same as any credit account, and the temptation to place an account on budget which does not pay on open account must be avoided.

(4) An important fact is that customers like the budget plan, and it is good for them, leveling out their payments over ten months, instead of the variable amounts of larger payments during winter months when holiday and tax requirements make their financial demands.

(5) We find the budget plan is equally as attractive to the customer with substantial income as it is to the customer with lesser income.

(6) The budget plan with final payment March 1 allows a period during March, April and May for reconciliation of accounts and preparation of next fiscal year budget with first payment again starting on June 1. Flexibility of this plan permits applying it during July, August, September and possibly October with increased monthly payments.

(7) It is a valuable feature of the budget plan that the customer's annual service contract amount can be included over the ten month payment period.

(8) It has been proven that calculations for monthly payment based on customers fueloil and service requirements for a full year can be made so that there is a minimum of adjustment at the end of the budget period.

We have found as most practicable a policy which provides for sending customers a check at the end of the budget period for any credit balance appearing on the statement rendered at that time. This is a real good-will builder.

Final Adjustments

When a debit balance appears on an account at the end of the budget season, it is a very practical plan to add this amount owing to the customer's anticipated requirements for the next heating year and spread it over the ten monthly payment period. Exception to this is when the amount owing by the customer is quite high, say, more than 30% of his total annual fueloil and service contract requirements. Then the account must be looked into and arrangement made with the customer to pay the full amount due, or so much as would reduce the next year's budget payments to monthly amounts which can be paid by the customer.

All in all, the fueloil budget payment plan is with us, our clients have from 15% to as high as 60% of accounts on budget and enjoy proportionately the advantages I have mentioned.

OILHEATING MARKET REPORTS*
Minneapolis-St. Paul

THE GEOGRAPHIC AREA embraced by this study includes all of Hennepin and Ramsey Counties, Minnesota, in which are located the cities of Minneapolis and St. Paul, plus practically all of their suburbs, or what might be considered their urban trading areas. The two counties contain only one percent of the state's acreage but a third of its inhabitants.

The population of the two counties in 1950 was 1,031,911, and by 1955 had grown to 1,105,700 for an increase of seven percent. It was a steady growth with no big jump in a single year. The present population of the area is 32.6% of the state.

By the start of 1956, we estimate that the total number of homes in the area at 369,926 units, and 278,743 of these were of the 1-2 family variety.

In 1945, fueloil rations were issued in Hennepin and Ramsey Counties for a total of 47,854 centrally-installed oilburners. By 1950, according to census figures, the number of centrally-heated, one- and two-family homes using No. 2 fueloil had increased to 62,641.

The table contains our various estimates and projections, which breaks down usage of the principal fuels used in centrally-heated, 1-2-family homes, in 1950 and at the start of this year.

	1950	*1956*
Coal	73,376	10,000
City Gas	55,008	115,147
Oil	62,641	71,426
LP Gas	1,008	13,900
Other	4,498	3,900
Totals	196,531	214,373

In addition to the 71,426 oilburners estimated in 1956, there are approximately 4,500 centrally-installed oilburners serving 3-4-family-unit, multiple dwellings. Over and above these, another 5,000 domestic-type burners are in service in small apartments and small commercial establishments. The total, 80,926, representing all such centrally-installed equipment, is 25-30% of the number of distillate burners that are expected to be shown operating in the state as of 1956.

Competitive Fuels and Costs

This market has normally used a bracket pricing pattern for No. 2 fueloil sold for heating. These are the current rates: 1-99 gallons, 16.3¢; 100-184 gallons, 15.4¢; 185-849 gallons, 14.3¢; 850 and over, 13.8¢.

Most families would buy at the third bracket or 14.3¢, equivalent to 10.2¢ a therm of 100,000 Btu.

The Minneapolis territory is served by the Minneapolis Gas Co. and St. Paul's gas utility is the Northern States Power Co., a combination gas and electric utility. There are four distinct gas rate structures in this market. The rates are bracketed within each month, so the coldest months will have lower rates per thousand feet on the average than will the milder months.

In a general way, this is about how the costs for heating work out per therm: Minneapolis city, 8.7¢; Minneapolis suburban, 10.0¢; St. Paul city, 8.5¢; St. Paul suburban, 9.5¢.

The rates went up a little while ago something like 25% in the St. Paul market and this has proven a considerable stimulant to the oil men in their planning for a promotional campaign.

Bituminous coal for hand firing sells at $23.05 a ton containing 13,700 Btu to the pound. Eastern Kentucky Elkhorn stoker coal is $19.10 a ton of 14,500 Btu. This figures out to 8.4¢ a therm for the hand firing sizes and 6.6¢ for stoker coal.

Fueloil Distribution

The estimated 71,426 1-2 family homes probably will burn, on the average, somewhere between 1,300 and 1,400 gallons of No. 2 fueloil annually, while each family unit in a 3-4 family dwelling will average around 6-700 gallons yearly, with the single, centrally installed burner requiring 2-3,000 gallons overall.

The oilmen assisting in this study, after studying the state figures of how much oil each company got last year, have placed the total market volume for residential heating use at 109 million gallons. This checks very closely with the combined consumption indicated in 1-2-family, and 3-4-family dwelling units. Then they estimate that there are in the Twin Cities market 5,000 small apartment and commercial accounts that use No. 2 oil for heating, with an average consumption of 3,250 gallons each. This accounts for another 16-17 million gallons, making a total of 125 million gallons as the yearly demand for No. 2 distillate for heating only.

No. 2 heating oil is brought into this market by both integrated or major companies and by independent terminal operators; it is believed the majors account for 69% of arrivals and the independent terminals for 31%.

At the retail level the oilmen estimate that 28% of all heating oil is sold direct by major companies, 19% by independent terminal operators and 53% by the local fueloil distributors or jobbers. About 26% of the fueloil marketers, in number of companies, buy their product "under the fill," not having their own bulk plants. They sell in the aggregate 18% of the gallonage.

Delivery refinements show that 53% of all accounts are served by automatic deliveries under the degree-day system. Tank fill signals of the VENTALARM or similar type are installed on 15% of the customer tanks. Budget plans are used for monthly payment of fuel bills by 16% of the customers.

All told there are 82 companies delivering No. 2 oil at retail in the twin market. They operate a total of 343 fueloil trucks. Nearly half of the trucks are in the hands of large companies operating 10 or more each. See table for distribution by size.

Fueloil distribution is quite closely allied to gasoline marketing in the Twin Cities. An estimated 63% of the fueloil marketers also sell gasoline. Another 6% of them sell coal; 11% sell oilheating equipment. The oilmen have estimated that they installed in 1955 only 15% of this equipment. Plumbing or heating companies sold 51% of the installations and specialized burner service companies sold 34%.

Oilburner Service

The oilmen do an estimated 11% of all burner service in the market. Another 40% is done by the heating or plumbing dealer group, while 49% is done by specialized burner service companies.

About 9% of the oilheating users have annual service contracts. If they include parts, the average charge is $30. Where they do not include parts the typical cost is $15. Another 35% of oilheated homes have their burners and furnaces given a yearly clean-up and overhaul, for which the going price is $11.

Most burner service in the market is on a straight call basis. If it's an oil company, the average minimum charge per call is $5.69, and if it's a heating dealer or special service company the average minimum is $6.65.

Advertising Program

The impression of local oil men is that the suppliers have done a moderate job of advertising fueloil, but as in other markets they have the impression that the emphasis is at least three-quarters on the brand and no more than a quarter on the family benefits from oilheating.

About a fifth of the independent marketers are credited with advertising fueloil and oilheating in newspapers, billboards or radio during 1955. Asked to estimate how much they spend for this advertising, some companies figure this at so much per existing account, and that average in the Twin Cities is $1.32. Other companies think in terms of allocating a fixed percentage of gross sales for advertising, and in this market such companies average 2%.

Co-operative oil heat advertising has been very light in the Minneapolis-St. Paul area. In the season of 1952-53 approximately $1,500 was raised and spent for some mailing pieces, radio spots and suburban newspaper ads. This fund was supplied by the Twin Cities Petroleum Club; none of it came from individual subscriptions.

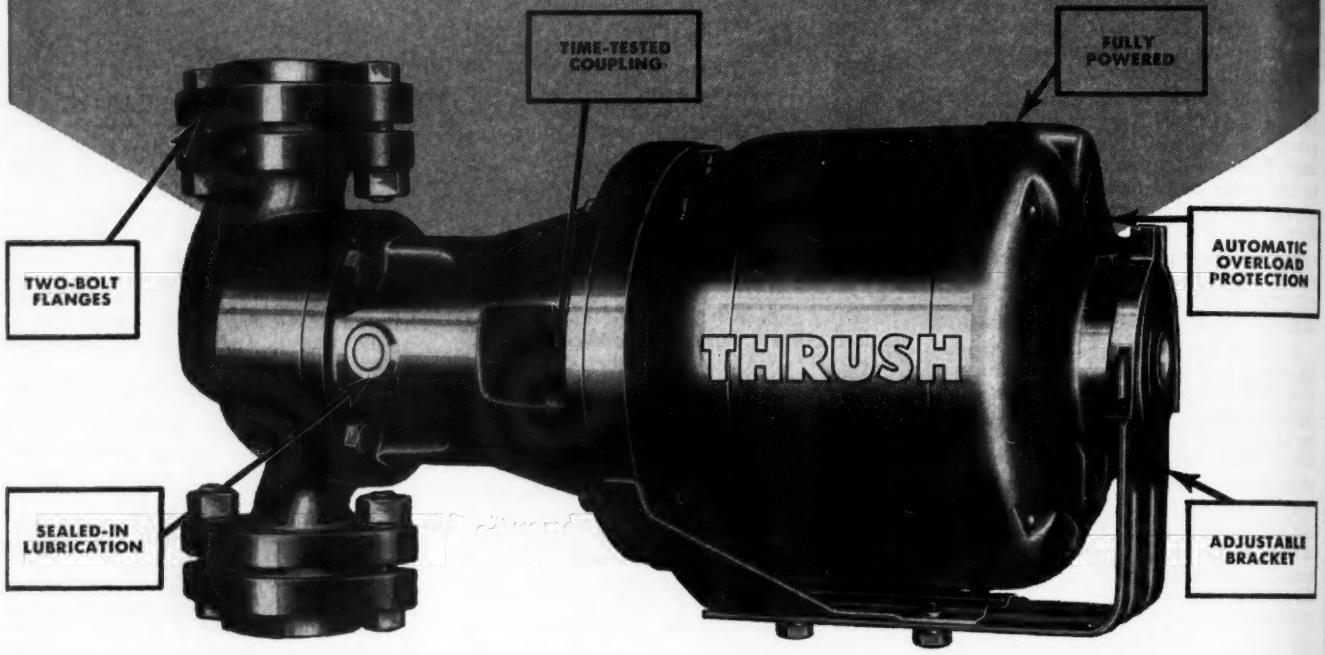
The suppliers and marketers in the area are now quite anxious to get going on a new cooperative program, large enough to be effective.

On a recommended subscription basis of $150 a million gallons at the wholesale level and $250 a million on all retail business, complete participation by all companies would produce $45,000 yearly. A practical goal would be three-fourths of this amount or around $35,000.

Trucks Operated	*Number Companies*	*Total Trucks*	*% of Companies*	*% of Trucks*
10 or more	10	157	13	46
6 to 9	6	42	7	12
3 to 5	28	95	34	28
1 or 2	38	49	46	14
	82	343	100	100

*Copyright 1956. Oilheating Market Reports, 270 Park Ave., New York, N. Y.

HI-HEAD THRUSH CIRCULATORS



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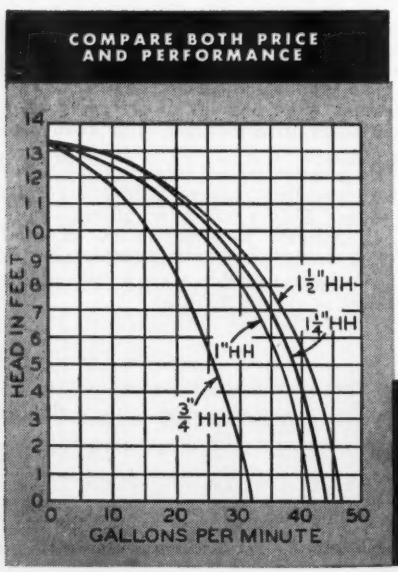
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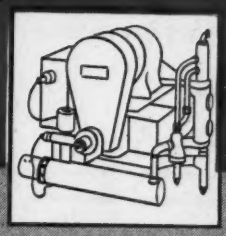


COMMERCIAL & INDUSTRIAL oilburning

SECTION

fueloil & oil heat

NEW YORK

COMMERCIAL & INDUSTRIAL oilburning

How to end No. 6 Oil high-vacuum Trouble

Part II. Continuation of Study to solve high-vacuum trouble on pump-type Burner

by

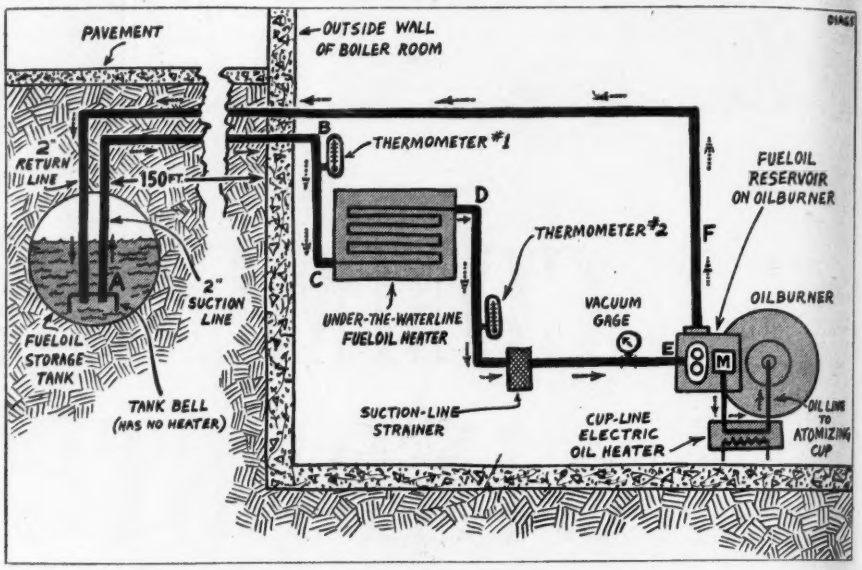
Jean L. Dupuis

Part I of this article appeared in the November issue of FUELOIL & OIL HEAT. *It described in detail the suction-line high-vacuum trouble of a pump-type burner firing 35 gph and using No. 6 oil.*

Be on guard for such trouble, the author warned, when a vacuum gage located close to the intake of the fuel-oil pump starts giving readings above 15". Readings of 20" or higher vacuum often mean that high-vacuum trouble is crippling the burner's primary pump to the degree that it does not return fueloil to the storage tank as it should.

Burner men facing this high-vacuum trouble on existing installations, or aiming to avoid it on new installations, should read part I of this article in the November issue, before reading part II which follows. To understand part II, you first must read part I.

For readers' convenience, Diags. 1 and 2, which appeared in part I of this article, also appear in part II.



Diag. 1—*Burner pump handles 55 gph on basis of zero to 5" suction vacuum at "E", and returns hot oil to "F" at rate of 20 gph. Firing rate is 35 gph. Vacuum increase to 15" cuts pump output to 49 gph, and cuts returned-oil rate to 14 gph; then one-third less hot oil returns to tank bell in storage tank. If suction vacuum increases to 20", hot oil returns to tank bell at only 5 gph because pump gph drops to 40. Here, 5 gph equals nothing! Big idea is that vacuum increase from 5" to 20" cuts rate of returned hot-oil (to tank bell) by three-quarters, or from 20 gph to 5 gph. Author had auxiliary pump-set installed on this job to return hot oil to tank bell at 55 gph with design suction-line vacuum of 15". Diag. 2 shows details of new pump-set and new eight kilowatt suction-line oil heater.*

"WE'VE GOT BAD TROUBLE," I sady told my dealer friend. "Any time the suction-line vacuum of a job of this pattern reads 18½", it's bad."

"On a job like this, the suction-line vacuum the pump has to develop to bring in fueloil from the tank should not exceed 15" when the burner is cycling normally, that is starting and stopping in its usual fashion to heat the building."

"What do we do now?" the dealer asked. "It's evident this job has had delivered to it a heavier load of No. 6 oil than has ever been delivered before. It's now ten o'clock at night. Heat must be on in this building in the morning, but that increasing suction-line vacuum certainly will conk out the burner before morning. Now what?"

The dealer and I would leave, I said. But his serviceman would stay for an hour and go through the same oil-line heating routine we had gone through earlier—running the burner motor and pump for one hour without producing a flame. He'd get a reading of 8" from the vacuum gage when he fired up again, together with readings of 125°F. and 170°F. from the two thermometers. Then he could leave knowing there'd be heat on in the building the next morning.

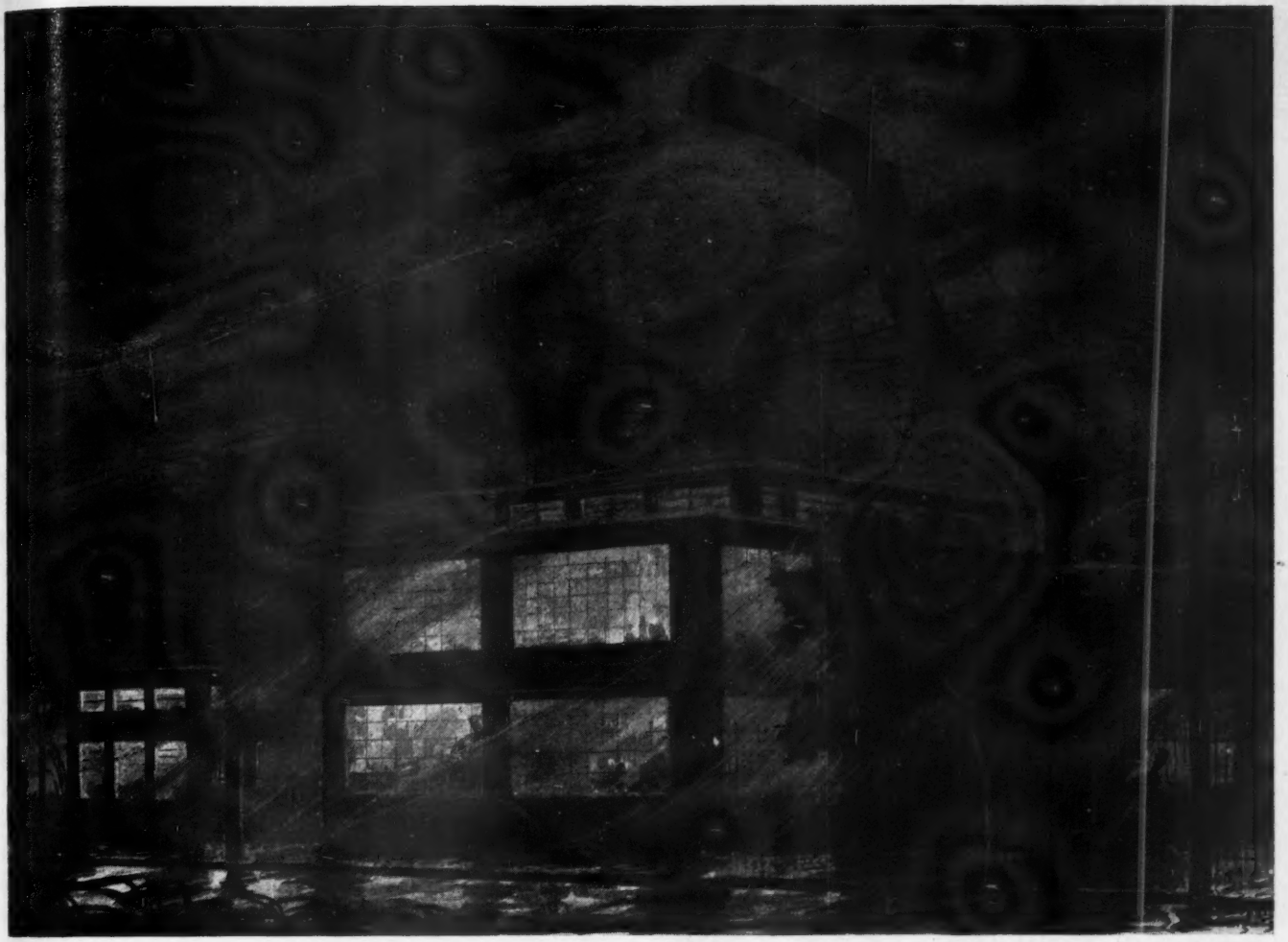
"To keep the thing going without breakdowns," I told the dealer, "first thing tomorrow morning have about 1,000 gallons of light fueloil put into the tank, with the owner's permission, purely as an emergency measure. Get light No. 5 fueloil, or commercial No. 4, or whatever is sold around here and is suitable.

"Don't have the light oil delivered in the usual way, just pouring it into the tank," I cautioned. "Run a 1¼" or 1½" pipe down to the bottom of the storage tank through the 6" or 8" direct fill-line. At the bottom of the 1¼" or 1½" pipe have an elbow and as long a pipe nipple as you can get through the fill line. Unload the oil truck fast as possible, having the elbow facing the suction bell in the oil storage tank, so as to squirt the 1,000 gallons of light oil towards the suction bell. That amount of light oil, mixed with the 3,500 gallons of No. 6 in the tank, will keep the job out of trouble for two weeks, I am certain."

He told me later that I was right.

This trouble job had taught us two things about itself:

First, putting hot oil back through the return line to the tank by running the burner pump continuously would keep the suction line amply warm. Details have been given. The 55 gph pump in the burner had to run con-



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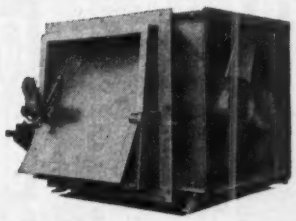

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tinuously without the burner's producing a flame. At only about 20 gph flow rate to begin with, the pump did the job. Running it continuously raised the suction-line temperature and dropped the suction-line vacuum with the result that the pump's gph output quickly went up to 50 to 55 gph.

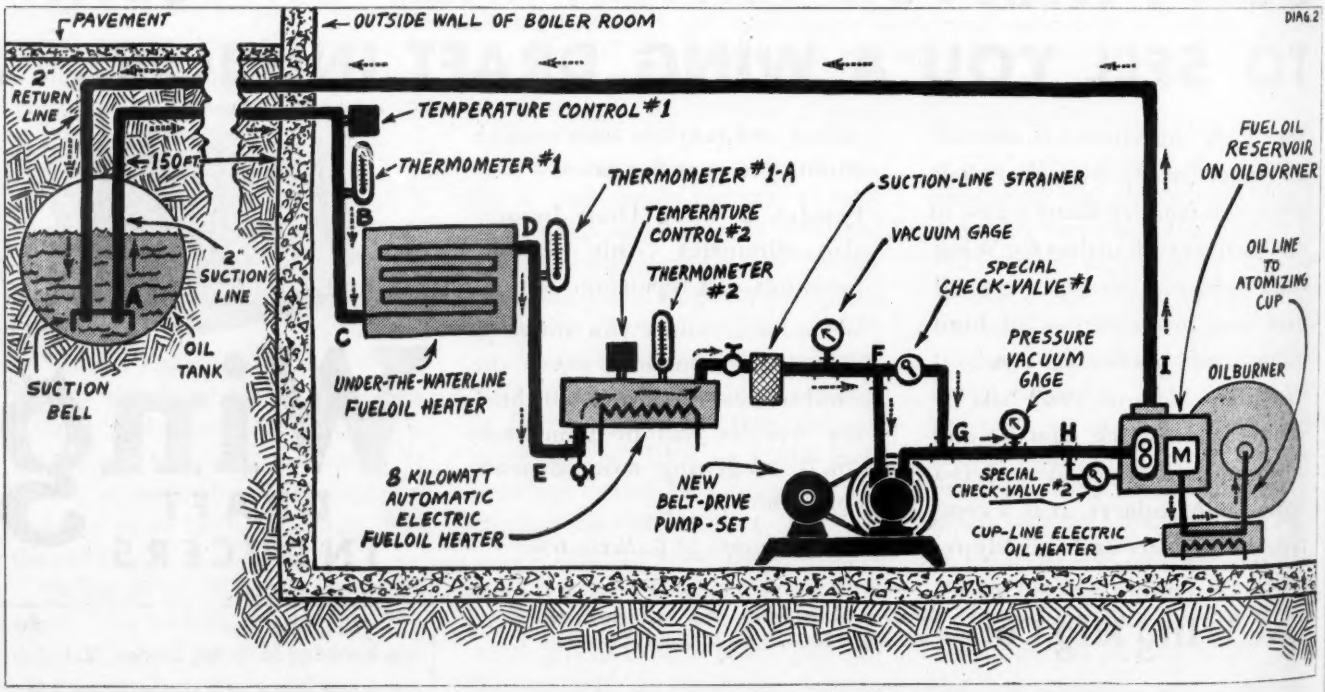
Second, even starting under most favorable conditions with the return and suction lines well heated, normal on-off operation of the burner (with it producing a flame) did not keep the suction line warm enough for continued operation. In six hours of such normal operation on a cold day, the burner again was in trouble because of excessive suction-line vacuum.

Conferences with the owner led us to the conclusion that because of several reasons we could not even consider breaking up the pavement over the 150-ft. length of outside oil lines, and going to work in any way on the lines. Our remedies, it was decided, had to be confined to operations within the boiler room. That ruled out promising possibilities we had had in mind about applying electric heat, automatically, when necessary, to the suction lines and insulating it beautifully along with the return line—and dropping both lines a few feet below the pavement.

I came up with the remedies shown in Diag. 2 on this simple basis: An auxiliary pump-set could perform in precisely the fashion that the oilburner primary pump performed when we ran the burner motor and pump without producing a flame. And the gph capacity of the auxiliary pump-set could easily be about twice the gph capacity of the primary pump in the oilburner, increasing tremendously the effect of heating the return line and suction line.

In Diag. 2, the new belt-drive pump-set, designed of course for No. 6 fueloil, will run (a) when the oilburner motor runs, and (b) when temperature control #1, reporting the suction-line temperature, is below 110°F. or 115°F. or some other suitable minimum suction-line temperature. Temperature control #1 will start the new pump-set when the temperature at the control drops to 110°F., for example, and will stop the pump-set (if a sufficiently sensitive control is installed) when the temperature at the control rises to 115°F. Important: Once the pump-set has been started, temperature control #1 is affected by the temperature of the fueloil coming into the boiler room through the suction line, from the tank. Once started, then, the pump-set will run until heat from hot oil, returned to the storage tank, has raised the temperature of the entire suction line to the desired level.

The new pump-set has valuable advantages over the oilburner primary pump in serving to keep the suction line warm on this job. First, the new pump-set is rated at 100 gph, thus pumps oil at practically twice the rate of the oilburner primary pump. Second, the new pump-set runs to heat the oil lines when no oil is being burned; thus all the oil it pumps is



Diag. 2—*Design rate at which hot oil returned to suction bell was 14 gph before new pump-set was installed. That's on the basis of the 55 gph pump in burner working against 15" vacuum and providing fueloil for a 35 gph flame. But actual on-the-job test proved the 14 gph hot return-oil rate insufficient to keep the return line and suction line hot enough for low suction-line vacuum. Author added the pump-set to increase the flow of hot, returned oil (to suction bell) to 55 gph on same basis of 35 gph firing rate and 15" suction-line vacuum. Now four times as much hot oil flows to suction bell as previously, when job was in trouble. Also during long oilburner "off" periods the new pump-set starts and stops automatically to keep suction-line temperature at "B" above 110°F.*

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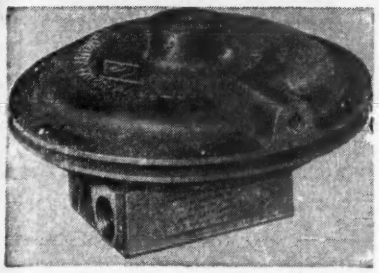

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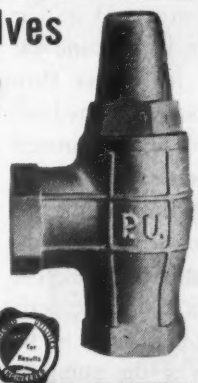

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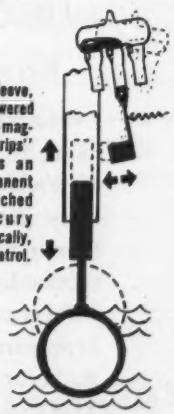

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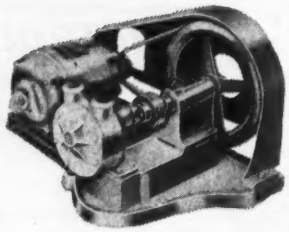

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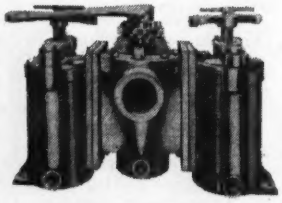

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speedily circulated through the return line and suction line. Third, the new pump-set will not work against high suction-line vacuum, for it will start automatically while the suction line is still warm; it should start when its operation will result in suction-line vacuum (at the inlet of the pump-set) no higher than about 13".

Check valves #1 and #2 in Diag. 2 are labeled "Special" because both are lightly spring-loaded, and both have O-ring seating that insures their closing dead-tight.

With the pump-set running because the suction line needs to be heated, but with the burner motor and pump idle, special check valve #1 in Diag. 2 will remain tight-closed. At the same time, special check-valve #2 will be open; I provided it to permit circulating the hot fueloil through the reservoir of the burner, even with the primary pump of the burner not running. You cannot, of course, push oil through an idle gear-type pump. But on several makes and models of horizontal rotary burners having primary pumps and reservoirs, if you know your oilburners you can provide check valves (installed right next to the reservoirs as Diag. 2 suggests) to permit auxiliary pump-sets to send hot oil right into and through the reservoirs when the burners are idle. There are valuable advantages in flowing hot oil through the reservoirs of these burners instead of bypassing the burners and their reservoirs.

Keeping suction Line hot

The pump-set runs when the burner motor runs because that has the effect of doubling the gph rate of the primary pump in the burner. With the burner running firing 35 gph and the suction-line vacuum no higher than 13" because the suction line has been kept warm, the flow of hot oil through the return line will be close to 65 gph. That's several times the return-line gph rate the burner alone used to provide. This in itself will help tremendously in keeping the suction line properly heated; it will result in little or no independent operation of the pump-set (caused by closing of temperature control #1) for the purpose of keeping the suction line warm.

COMMERCIAL & INDUSTRIAL oilburning

The new pump-set may fail or break down as the years go by. Suppose its motor is stopped by an open overload protector or blown fuse, or suppose the belt of the pump-set breaks. Then, with the pump-set idle, the oilburner will operate just as though it had no pump-set, thanks to the use of the two special check valves. Special check valve #1 will open; #2 will remain closed. If fortunate, maintenance men will notice that the pump-set is idle and the suction-line vacuum is high—before the burner stops running because it again has gotten into its old trouble of high suction-line vacuum. Actually good pump-sets are easily maintained in excellent condition, and then they rarely break down.

In studying Diag. 2, bear in mind that the steam boiler on this installation is kept at a minimum temperature of 160°F. because it has a tankless water heater. The under-the-waterline indirect fueloil heater in the drawing should always, then, provide oil at least at 140°F. for the pump-set, when the pump-set starts as the result of action of temperature control #1.

Why, then, is the new eight-kilowatt automatic electric fueloil heater shown in Diag. 2? Its thermostat (temperature control #2 in the drawing) is set at 120°F., thus never will this big electric heater work if the boiler is hot.

In round numbers, the eight-kilowatt suction-line heater in Diag. 2 can heat a 100 gph oil flow by 50°F.

This heater was installed because of the past difficulty in getting the burner started again after an accidental or intentional shutdown lasting long enough to permit the boiler to cool enough so that its under-the-waterline heater provided no hot oil.

The burner used to break down nights and weekends every so often. Getting it started again caused much trouble and took a man three or four hours, because only cold fueloil would flow to the oilburner during the start-

ing efforts. Stone-cold, the suction line provided miserably small amounts of oil for the burner, in dribs and drabs, while the suction-line vacuum skyrocketed to 25", the maximum the pump in the burner could develop.

The eight kilowatt heater ends that problem, and permits easy, speedy, graceful starting of the burner after a breakdown in the middle of the night.

Off-on-Safety

Here's what happens when the burner "goes off on safety" during the night. Temperature control #1 starts the new belt-drive pump-set because the suction-line temperature drops below 110°F. The pump-set works against a suction-line vacuum of 13" maximum, thus circulates fueloil through the return line and suction line at a high gph rate, close to 100 gph. Receiving no hot oil from the under-the-waterline heater because the burner breakdown caused the boiler to become cold, the electric oil heater in the pump-set input line is turned on automatically by its temperature control #2. From then on until a serviceman tries to start the oilburner, oil comes from the eight kilowatt electric heater at 120°F., and the pump-set keeps on circulating this hot oil throughout the return and suction lines. Even the oilburner reservoir is kept warm at close to 120°F., with the result that the burner can be started immediately, nicely, and without fuss when a maintenance man or serviceman arrives to tend to it.

Burners must be shut down from time to time for tube cleaning of boilers, burner or boiler repairs, etc. To insure immediate, clean-cut start-ups after shutdowns, the pump-set and eight kilowatt electric heater may be kept turned on during the shutdowns; then the oil lines and burner's reservoir will be hot, ready to go.

For a prolonged shutdown, you can open all the switches and permit the entire job to become cold, if you desire. In that case, about two hours before you want to start the burner you turn on the eight kilowatt suction-line heater, the pump-set, and the automatic electric heater in the burner's atomizing cup-line.

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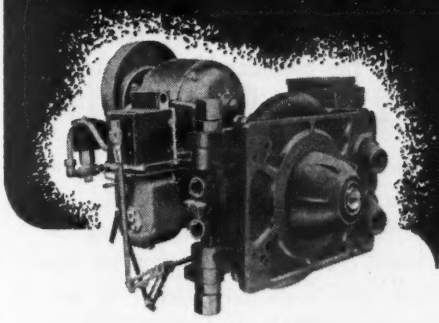

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At first the pump-set will develop excessive suction-line vacuum because its outside suction line has become stone cold. Within two hours, however, the considerable heat from the eight kilowatt heater will be distributed through the return and suction lines, and the burner will start easily and without fuss.

The thinking behind Diag. 2 is based on the principle that we should not give unheated fueloil to an oil pump or oilburner during a cold start-up (boiler stone cold). That's because heavy-oil pumps and automatic burners cannot be expected to do at all well with fueloil flowing to them at tempeartures below, say, 110°F. or 120°F.

The increasing heaviness of No. 6 fueloil, and the probability of its becoming still heavier, are making it ridiculous to expect to start an oilburner with a boiler stone cold, and with No. 6 fueloil flowing to the burner at room temperatures as low as 60°F. to 75°F. Warm No. 6 fueloil, at 110°F. or 120°F., should be available for start-ups when steam boilers are cold. Such warm oil can be provided by electric heaters, amply sized, or by oilheating arrangements powered by small boilers fired by light fueloil or gas.

As has been emphasized, high suction-line vacuum reduces the output of a typical slow-speed pump handling No. 6 fueloil.

Test Results

Here are results of a test made by R. C. Michel, of The Kraissl Co., who was mentioned earlier in this article. The tests were made on a Kraissl Model 600-3-S pump, rated at 100 gph, shaft speed 400 rpm, designed for heavy fueloil.

At from zero to 5" suction-line vacuum, this pump delivered 100% of its displacement. At 10" vacuum, the pump output dropped to 96%—and at 15" vacuum it dropped to 89%, of displacement. No great disadvantage for this pump, then, in a 15" vacuum at its intake; that led to practically 90% of full output from the pump.

At 20" vacuum, the pump output dropped to 73% of maximum. Watch this: at 25" vacuum, pump output dropped to 33% of rated or maximum

COMMERCIAL & INDUSTRIAL oilburning

output. No output, or cut-off, occurred at 26½", the maximum vacuum the pump could develop.

Pressure the pump worked against, tested at zero, and 25 and 50 lbs., had no important effect on the gph output of the pump.

Giving the pump thinner or thicker oil, for example kerosene or cold SAE 30 lubricating oil, had negligible effect on its gph pumping rate.

Thus the way things work out, suction-line vacuum has great effect on the gph outputs of fueloil pumps on commercial - industrial installations. Roughly, you can say that suction-line vacuum up to 15" is all right. Encountering suction-line vacuum above 15", be on guard for decreased pump output that causes the kind of trouble covered by this article.

Don't skimp on the size of the suction-line electric heater, if you apply the ideas of Diag. 2 to existing installations having suction-line high-vacuum trouble. Provide enough kilowatt heater capacity for at least a 50°F. temperature rise for the maximum gph rate at which fueloil will flow through the heater.

If up to now you have not done this, learn about the need for and advantages of the new low-watt density electric heaters for No. 6 fueloil. Probably you will aim to install heaters providing no higher than 10 to 15 watts per square inch of electric heating surface. You can learn about this aspect by discussing it with manufacturers of electric heaters made for No. 6 oil, and by studying detailed technical literature covering such heaters.

If you install electric oil heaters in housings or fueloil reservoirs that you provide (instead of buying the heaters complete with housings from heater manufacturers), make doubly certain your housing or reservoir designs provide proper oil flow through and around the hot electric elements. Improper housing design can wind up

with hot fueloil pocketed around heater surfaces that do not receive the benefits of proper, lively oil flow past them.

The ideas in Diag. 2 should not be tried on installations having notably undersize suction and return lines, but aside from that they have considerable flexibility. They can be used on jobs having return-line indirect fueloil heaters, instead of the suction-line indirect fueloil heater shown in Diag. 1. They can be used on jobs having cup-line indirect heaters to provide oil at relatively high temperatures for atomizing cups.

On-the-job Adjustments

These ideas, in Diag. 2, also have flexibility with respect to particular on-the-job adjustments and control variations. For example, the pump-set you install may rush fueloil through an installed indirect oil heater at an excessive rate that causes insufficient oil temperature at the output end of the heater. Occasionally that has happened. In that case, make use of the belt-drive features of the pump-set to reduce the pump's shaft speed and gph rate to any desired degree; simply install pulleys of different sizes. To go to an extreme, you can install a motor of lower shaft speed.

Using similar methods, experts sometimes step up the gph capacity of belt-drive pumps where they find this advantageous. Experts know how to do this without getting into pump-set trouble.

If high gph rate of the pump-set is needed to keep the suction line warm, but produces too low a temperature on thermometer #1-A (Diag. 2) for excellent atomization of the oil by the burner, you can arrange things so that the pump-set starts only when temperature control #1 snaps on, does not start and stop with the burner motor, and cannot run when the burner motor is running.

That gains you the advantage of two different gph flow rates through the suction line and suction-line heater. With only the oilburner running, the flow rate through the suction-line heater will be 50 to 55 gph; consequently the oil will come from the indirect heater on this job at above

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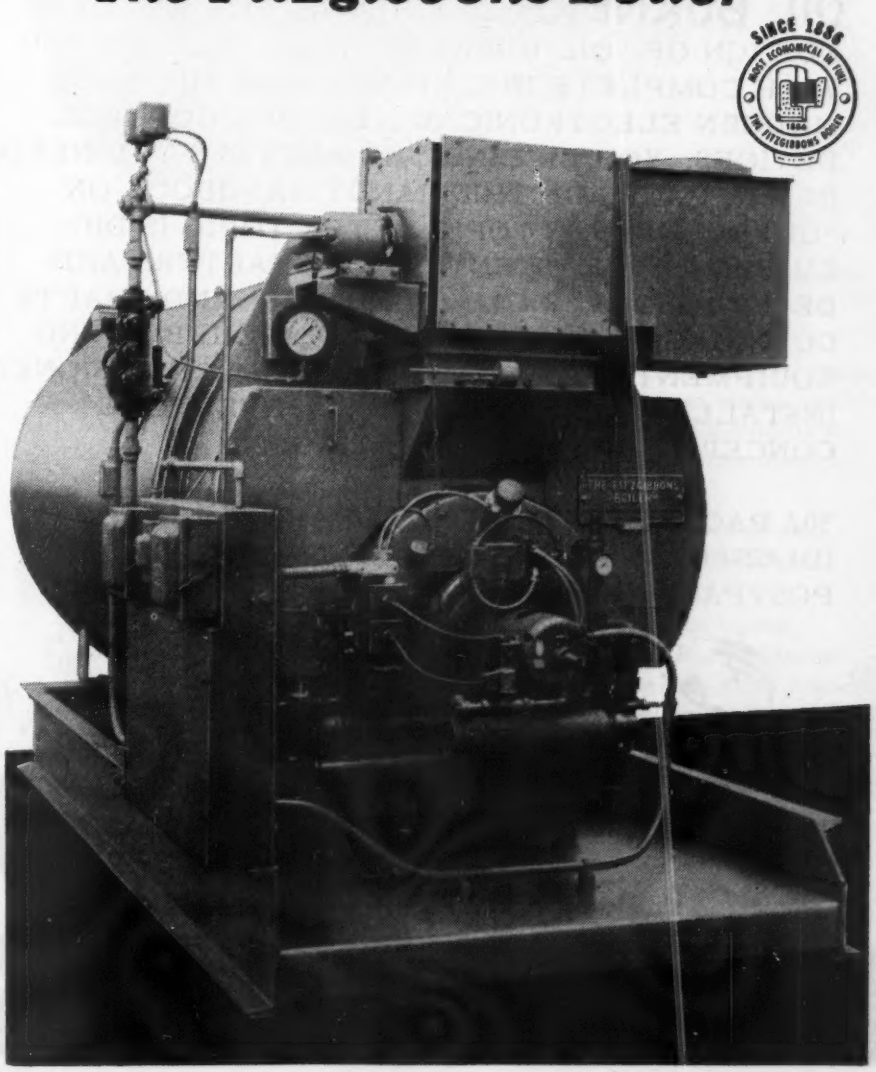

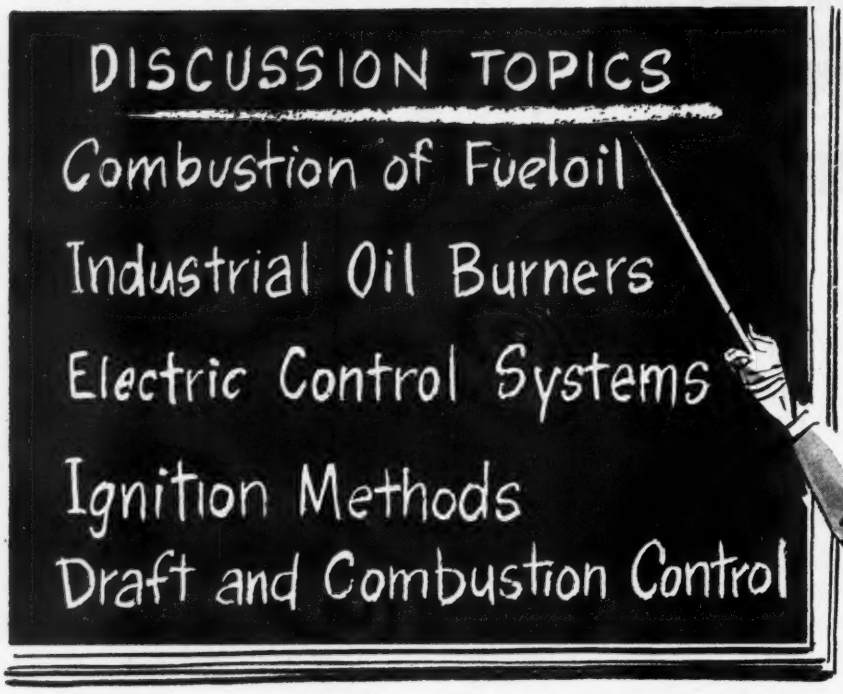

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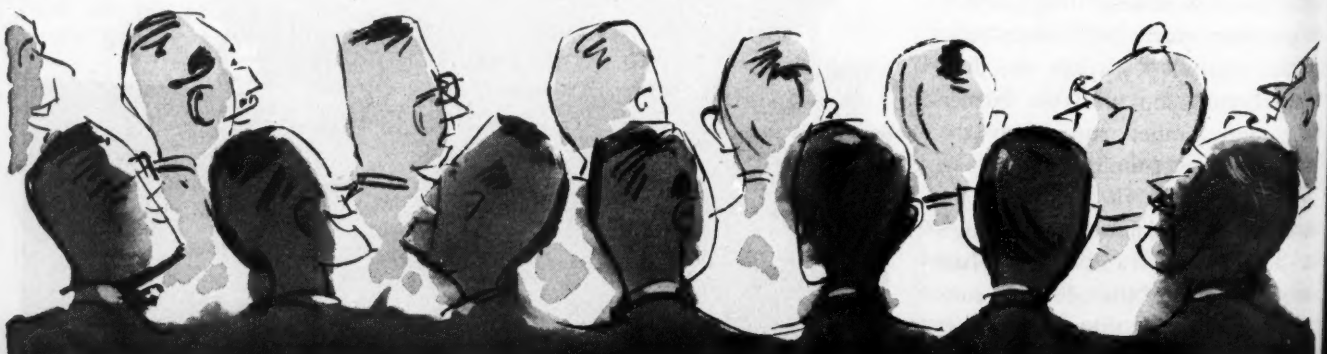

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150°F. — hot enough for excellent atomization by the burner.

But with only the pump-set motor running (burner idle) the gph flow rate through the suction-line indirect heater can be 100 gph. Fueloil will flow faster through the suction line and its indirect heater. This heater will provide much more heat for rapid heating of the suction and return lines, but the oil-outlet temperature of the heater may be lower than when the oil rate through it is 55 gph.

On one installation, the boiler-room ambient temperature at the location of temperature control #1 (in Diag. 2) was unusually high, above 120°F., and therefore kept control #1 in its "off" position even when the outside, buried suction-line became excessively cool.

Improved operation, on that installation, resulted from using a time-switch to start the pump-set every half hour and keep it running eight minutes; but because of its high gph pumping rate the pump-set in this case was wired so that it could not run when the burner motor was running. A one-hour time-switch, really designed for hold-fire operation on a stoker job, was used to start and stop the pump-set motor every half hour.

Follow ideas like these for sizing fueloil lines in a layout of the type in Diag. 2. After the return and suction lines come through the foundation wall into the boiler room, run them full size (usually 2" or 2½") until you reach the points at which they must be reduced in size because they connect to necessary devices having smaller size pipe connections.

Use 1¼" piping to connect together the major oilheaating and oil-handling units shown in Diag. 2. These include (1) the under-the-waterline fueloil heater, (2) the suction-line electric oil heater, (3) the belt-drive pump-set, and (4) the oilburner itself.

Use 1¼" piping to connect such units to each other. You will encounter pumps and other units which have pipe connections much smaller than

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1¼" size—a pump or burner may have connections as small as ½" or ¾" pipe size. Starting at such small pipe-size connections, increase to the 1¼" pipe size within the shortest distance you find feasible or possible . . . and certainly within a 12-inch distance.

Don't, for example, use pipe size smaller than 1¼" for a pipe run that's three feet long, or longer.

One one installation, special check valves #1 and #2 were of only ½" pipe size because this was the pipe size into and out of the gear pump of the pump set, and of the connections in the side of the burner's reservoir. But because points "G" and "H" worked out to be 14 ft. apart on this installation (see Diag. 2), 1¼" piping connected points "G" and "H."

Using the foregoing variations and other ideas that will occur to you, you can tailor-fit these ideas to individual installations.

Readers' Problems

Q. Saturated steam at 100 lbs. pressure comes from a 175 hp boiler carrying a process steam load. I plan installing a pressure-reducing valve (followed in line by two 15-lb. pressure safety relief valves and a motorized valve), reducing pressure to three pounds for a system of one-pipe steam radiation of 1,350 sq. ft. standing load.

Question 1: A critic of my idea emphasizes that the steam coming out of the reducing valve will be superheated, and says that this is unlike the steam from a low-pressure boiler. He says therefore the superheated steam is not suitable for one-pipe radiation. This steam, he says, for example will not perform properly in the radiators, will lead to misbehavior of the radiator vent valves.

Question 2: In a set-up like this, are the benefits of returning condensate to the boiler, from the one-pipe radiation, usually enough to justify the cost of the return-pipe system that brings this condensate to the boiler-room receivers now serving the big boiler?

Or is the 1,350 sq. ft. standing steam radiation load so light compared to the boiler capacity that we may as well waste the condensate, or just "pipe it overboard?"

The return-line system would include 230 ft. of 1¼" pipe that runs inside, along the walls of a few rooms.

M. G. D., Brewer, Me.

A. First, the superheated steam from the reducing valve is not only suitable for the one-pipe steam system of radiation—but its use has advantages over using saturated steam. The steam mains and risers to radiators will contain less water, or condensate, than if saturated steam entered them. In certain cases of hairline pipe-sizing, smaller mains can be used for superheated steam than for saturated steam.

Don't worry about performance of the radiator vent valves, either. With the radiators giving off heat and condensing steam, the steam in them will not be superheated. It will be exactly the same kind of wet steam as would be in the radiators if they were connected to a low-pressure boiler.

Answer 2: By all means install the return-line system that avoids wasting the condensation from the one-pipe system. This system will save fuel, prolong the boiler life if the boiler water is not being conditioned chemically, or save chemicals if the boiler water is being conditioned. In general, piping such condensate to drain represents extremely poor practice.

Q. If double ignition systems and two shut-off valves in cup lines make for safer operation of horizontal rotary cup burners, starting at about 20 gph sizes, why don't all manufacturers of these burners provide these features? Working for an architect and specifying boiler-room equipment for industrial projects, I am dealing with a client strongly in favor of these features. He's owned many big burners for years, cites impressive past difficulties he blames on their omission.

G. S. H. Stillwater, Minn.

A. The burner manufacturers reluctant to provide the two described safety features plainly do not consider them worth the extra protection they provide. Proper electronic monitoring of a truly modern gas pilot is a strong argument against the need for a double ignition system. We know of no new burners featuring two shut-off valves in series in their atomizing-cup lines.

Q. Working at servicing burners firing big one-pipe steam plants (powered by 30 to 200 hp boilers and heating apartment houses, factories, greenhouses, etc.) I am puzzled by greatly different rates of steam-pressure build-up after burners are started with radiators cold.

On jobs at one extreme, running a burner 30 minutes results in one-pound pressure on the boiler, radiators still cold for most part and loud and annoying hissing from all the radiator vent valves.

On second type of jobs at other extreme, 30-minute burner operation leaves boiler with such low pressure that steam-pressure gage on boiler has needle still on its pin. At same time most radiators are heated, and during the 30 minutes the radiator vent valves made no sound, no hissing, whatsoever.

Though annoying in itself, I feel the hissing sounds of radiator vent valves may be more important in reporting totally wrong kind of operation of the steam plants.

D. S. J., Newark, N. J.

A. First, make certain over-firing the radiation loads is not causing the loud vent-valve hissing, where you encounter it.

No hissing at all can possibly mean you are not firing hard enough to heat all the steam radiators within, say, of one hour's burner operation . . . starting with boiler hot at about 170°F.

As a rough check-up on gph firing rate compared to radiation load, you

can try to run a burner steadily for two hours on a severely cold morning. If you are over-firing the radiation load greatly, the burner will be stopped and started many times during the two hours, by its high-limit steam-pressure control. If during this test the burner is stopped more than three or four times an hour by this control, try a lower gph firing rate.

If you are under-firing greatly, for the radiation load on the boiler, two hours of continuous burner operation on a cold morning will wind up with some of the radiators still not fully heated, and with no appreciable steam pressure on the boiler. For many typical systems, call this less than two or three pounds pressure on the boiler.

Fired at the correct gph rates, certain one-pipe steam plants build up air pressure in cold radiators excessively (resulting in perhaps a pound of pressure showing on boiler pressure gages after burners have been running only 20 minutes, and resulting in hissing sounds from vent valves) only because air is not escaping from the radiators fast enough through vent valves.

One reason for this lies in exceptionally large radiators, hence in the use of few vent valves for the size of the radiation load. The radiators may be so large that each needs two or three high-capacity modern radiator vent valves.

Another reason for this lies in the use of low-capacity radiator vent valves on radiators not exceptionally large. Then the remedy lies in switching to a complete set of new, modern, high-capacity vent valves for the entire system.

Your thinking is in the direction that proper operation of one-pipe steam plants depends on (1) proper gph firing rates for radiation loads, and (2) sufficiently fast venting to avoid objectional hissing sounds from vent valves. Your thinking is 100% correct.

2. Can I use one of your thumb rules (I think I've seen one which applies) to solve this water heating problem?

Factory owner has new tankless water heater, rated output 30 gallons-per-minute, 100°F. rise. New, separate oilboiler is needed just to give steady steam to this tankless heater. What's the horsepower size of the new boiler?

Please explain the basis of the thumb rule that applies to this, so I can put faith and understanding into using the thumb rule.

R. T. W., Milwaukee, Wis.

A. Thumb rule, an oldtimer in pages of FUELOIL & OIL HEAT, is that firing oil at rate of 1.0 gph produces enough Btu's, assuming 70% boiler efficiency, to heat 2.0 gpm of hot water over range of 100°F. rise.

The 30 gpm, 100°F. rise tankless heater you describe thus calls for a steam boiler fired at 15 gph. As each gph fired (again assuming 70% boiler efficiency) produces approximately three boiler horsepower, you need a 45 hp boiler for this tankless water heater. Better install a 50 or 60 hp boiler, especially if it is literally true that at times the output of the water heater actually will be 1,800 gallons of hot water, 100°F. rise required, in one hour.

(*Please turn to page 83*)

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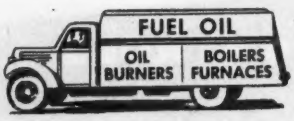

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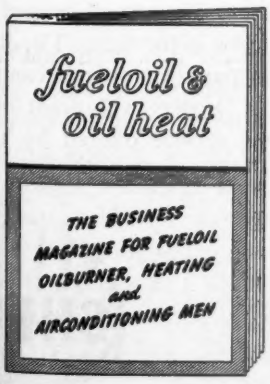

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Basis of the thumb rule is one gallon of fueloil contains about 140,000 gph; therefore firing 1.0 gph at 70% efficiency provides 100,000 available Btu per hour.

To heat one gallon of water per minute, 100°F. rise, requires 830 Btu. Sixty times that (one gpm hot water amounts to 60 gallons in one hour) equals 50,000 Btu per hour, needed to produce steady flow of one gpm hot water. Divide 100,000 Btu per hour (available heat per hour produced by firing oil at 1.0 gph) by the above 50,000 Btu per hour (needed to heat 60 gallons of water per hour, 100°F. rise) and you arrive at the thumb rule:

At 70% boiler efficiency, firing 1.0 gph produces enough heat for two gallons-per-minute of hot water, 100°F. rise basis.

Round numbers are used above. Substitute more accurate numbers in the equations, if you desire. The thumb-rule figuring will come out the same, however.

Q. Having just purchased this old house, the new owner wants to sue the previous owner on the grounds that one of the rooms is impossible to heat properly and thus is not usable and can't be occupied.

The troublesome room has three cold walls and a cold ceiling. But most important, it is large and has a 22 ft. x 36 ft. cold floor located over an open porch. Floor seems freezing in cold weather, with winter winds blowing through right under it and only a few inches away.

Is the new owner of the house correct in declaring this room impossible to heat properly? Or how to heat it?

S. F. Joplin, Mo.

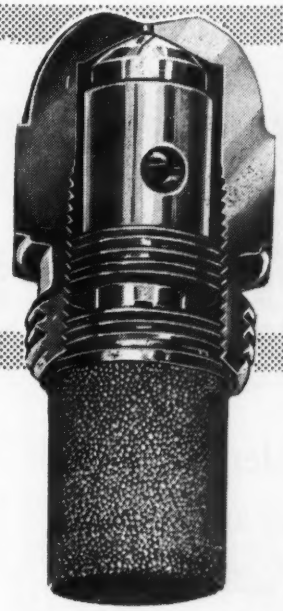
A. The room can be heated extremely well by spending enough money on heating it properly. If electricity cost nothing or next to nothing, for example, working from underneath you could apply electric heating cable to the ceiling of the porch under the room, then install a 4" thickness of rock-wool or glass-wool, and over this install a false ceiling. By applying a sufficient number of Btu's per hour to the cold floor on a basis that does not waste the Btu's to outdoors, you could raise the floor temperature to 80°F. or higher.

That's just an example, for electricity costs too much to be used that way to help heat a room.

However, you could apply heat from any type of oilfired heating system to the floor; it could be heated by warm-air ducts, hot-water pipes, or even steam pipes located between the floor beams. In one actual instance, a 1¼" steam pipe equipped with a vent valve was installed between each set of floor beams; a manifold gave steam to all the pipes; a valve controlled the steam and permitted adjusting for more or less floor heat; 4" of insulation was installed below the steam pipes.

To go all out in ending the trouble, then, heat the floor to at least 80°F. by using Btu's from the oilfired boiler or furnace. Provide means for adjusting for more or less floor heat.

Second, consider turning the heating plant into a two-zone system. Provide one room thermostat for the prob-



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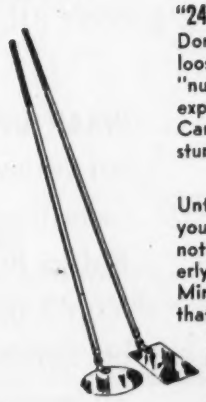

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E. S. Gallagher Sales Ltd., Toronto 12, Canada

lem room, and provide a second room thermostat for the entire rest of the house. Arrange things so that the problem room can get heat from its warm-air registers or radiators without any effect on the heat in the rest of the house—and so that the rest of the house can be kept at any desired temperature without affecting the heat in the problem room.

The problem room can be heated properly, but the improvements that lead to its proper heating may cost as much as $1,500.

Q. What is the expected amperage load of a 110-volt three-quarter horsepower windowsill summer air-conditioner?

Why is it often stated that such a conditioner overloads ordinary house wiring and needs a special circuit? Is the starting load excessive for normal house wiring?

Can't I connect the described unit to house wiring by just plugging it in? How about two or three in the same house?

T. C. A., New York

A. On-the-job amperage tests of a few dozen ¾ hp windowsill conditioners installed in recent years showed that none drew less than 11.0 amps and none drew more than 13.5 amps.

You can expect a typical ¾ hp unit to draw about 13.0 amps.

That's not excessive load for a 15-ampere, No. 14 wire circuit that is not overly long and that serves only the air-conditioner. Yet it comes close to being the maximum load for such a circuit.

The starting load of a ¾ hp unit is not excessive for a 15-ampere circuit in this respect: The unit will not blow a 15-ampere fuse of the time-delay type—it will not, on starting, blow a 15-ampere Fusetron, Fusestat, or K-E Thermofuse.

To find out if you can use the unit on the particular circuit in your own home, you might rig up a 13-ampere "phantom load" made up of resistances. Plug it in and ascertain if it produces an excessive voltage drop at the particular outlet. The instructions regarding several makes of windowsill units give data on what is excessive voltage drop.

Probably you can connect a ¾ hp unit to an ordinary circuit that carries no other load—and barely get by.

You can't dodge the fact, however, that an electrical load as great as that of a ¾ hp unit is served best by a separate, independent circuit that carries no other load. If you install a new circuit for such an air-conditioner, you may as well spend a few cents more on material and use No. 12 wire to play safe. One engineer we know always goes whole hog and uses No. 10 wire.

The same reasoning applies to installing many units in the same house. To follow best practice, provide a separate circuit for each unit and use wire heavier than No. 14. Protect each unit with its own 15-ampere time-delay fuse.

Q. How do you air-rid a pressure burner connected to an outside oil storage tank located below the burner? The lift is great as the top of the 1,000-gallon tank is about eight feet below level of the fuel unit. Because of this, the burner has gained a reputation for being troublesome. Starting it the first

season's greetings

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WRAP UP MORE PROFITS for yourself by installing only Fulflo Filters. You'll have less burner trouble due to oil impurities . . . fewer costly service calls . . . greater customer satisfaction.

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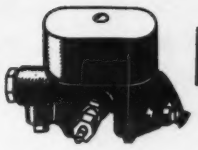

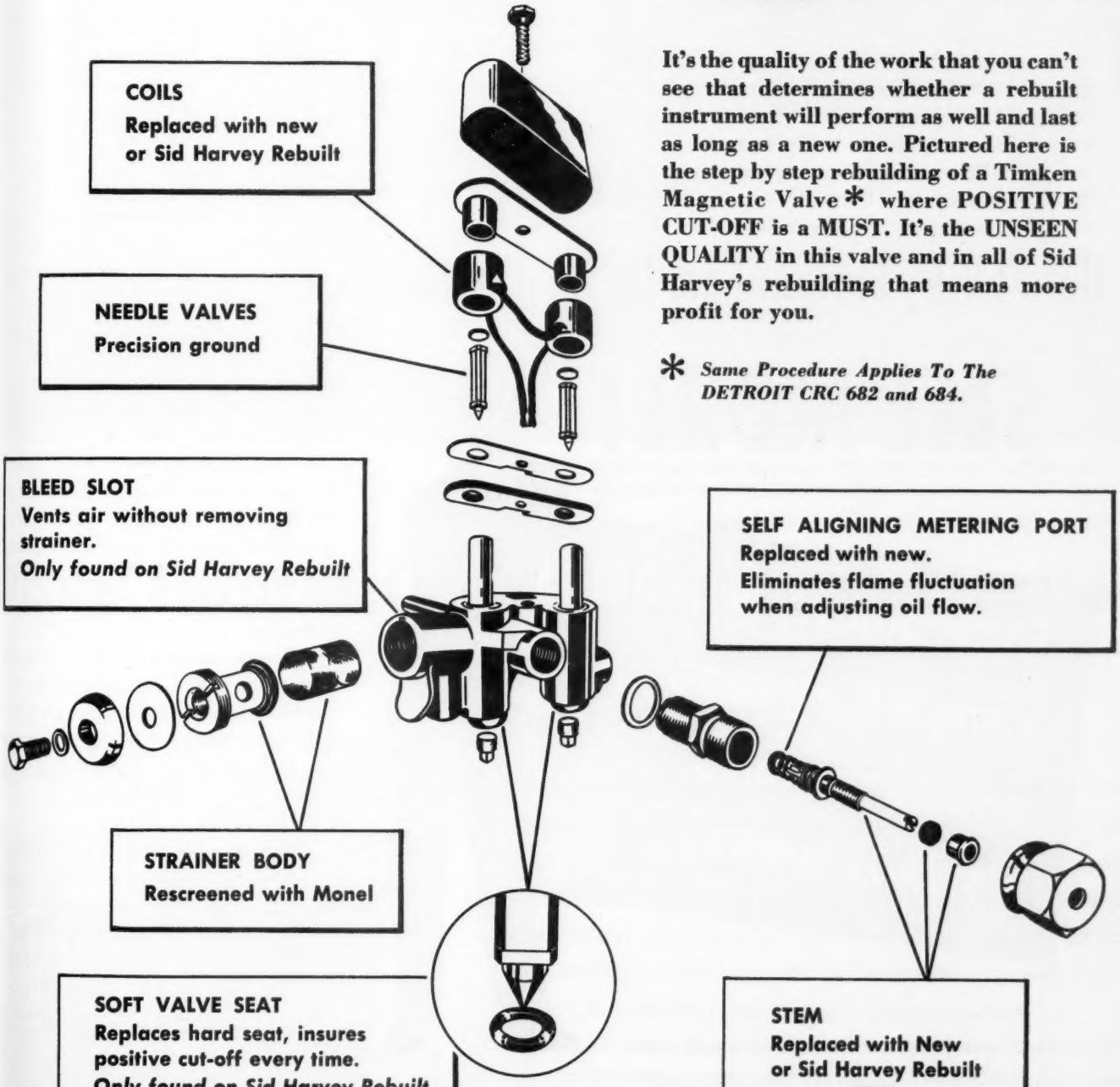

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* *Same Procedure Applies To The DETROIT CRC 682 and 684.*

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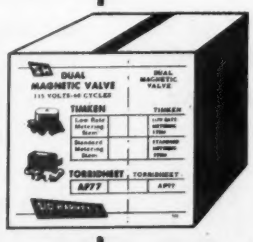

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time, the men took hours getting oil from the tank to the burner. There was the same trouble starting it after it ran out of oil. It loses prime every so often (pump becomes air-bound) and no decent, shipshape way for starting it again is known to me or others who service it.

B. R. C., Oakland, Calif.

A. For reasons given in detail on p. 136 of the June issue of FUELOIL & OIL HEAT, a pressure burner connected to a buried tank must have a return line. The installer of the troublesome burner you describe was dead wrong in omitting the return line, and his error has resulted in the vast amount of trouble you describe.

Make the job right simply by installing a return line. Or install a wall pump to feed the burner by gravity.

Meantime, however, you can use this shipshape and efficient system for starting a pressure burner connected to an outside tank but not fitted with the return line it should have:

1. Change the set-up of the fuel unit. It is set up for one-line (no return line) operation, of course. Set it up for two-line operation (as though a return line were used) by closing its by-pass arrangement. Take the proper steps; these are different for different makes and models of fuel units.

2. Connect a short piece of copper tubing to the return-line port of the fuel unit. Perhaps use a three-foot length of tubing of ¼" OD size, or use any larger size convenient for you to use. Place the open end of this piece of tubing in a five-gallon can or any similar receptacle, as fueloil will run out of the tubing when you run the burner motor.

3. Run the burner motor. The fuel unit will air-rid itself as though it had a return line. Keep the burner running for two or three minutes after all oil, no air, comes from your temporary return line. That air-rids the fuel unit completely.

4. Still keeping the burner motor running, quickly close the hand shut-off valve in the burner's feed line, which brings in oil from the outside tank. Then turn off the burner. The closed valve will keep the feed line full of fueloil.

5. Spilling as little fueloil as possible from the fuel unit, set it up again for one-line operation and replace the pipe plug in its return-line port.

6. Start the burner, and quickly open the hand valve in its feed line.

Q. I have a job on which the flame is smoking for lack of enough over-fire draft, which causes insufficient flow of air through the checker-board, secondary air openings under the fire-box floor. Burner fires about 35 gph of No. 5 oil, and over-fire draft always is below .03 inches. Is this a good remedy? I have on hand a large direct-driven centrifugal blower with a one horsepower motor, and plan to install this to force more air through the fire-box floor.

E. S. W., Brooklyn, N. Y.

A. Your plan is risky, for it would reduce the over-fire draft, perhaps making it plus. If you can't improve the chimney draft, certainly you should provide the installation with a draft inducer, or induced draft blower. Manufacturers of these will give you the information yon need.

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OHI Distribution Division increases to 61 Chapters

AS OF THE September board of directors' meeting there were 3,100 members in 61 chapters within the Distribution Division, Oil-Heat Institute of America, Inc., New York.

Five new chapters were approved at the meeting and are included in the 61. A roster of the chapters follows:

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W. H. Talley, Secretary

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John Neustadt, President
Leo R. Wolfe, Secretary

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Indianapolis 4, Indiana
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. . . A 3-WAY CONDITIONER for Fuel-Oil Tanks
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NEW TANKS For full protection add one quart of FUEL TONIC for every thousand gallons of fuel oil.
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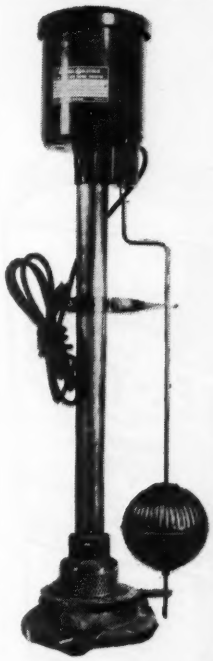

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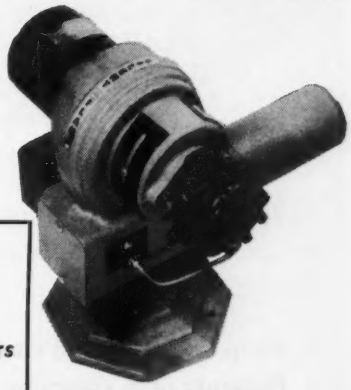

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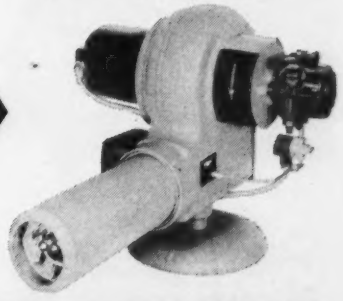

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(Please turn to page 126)

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REMOVES the CAUSE of FUEL OIL TROUBLES

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SOLDER SEAL
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QUALITY PRODUCT
FUEL OIL CONDITIONER
KEEPS OIL BURNERS AND STORAGE TANKS CLEAN
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Size	To Case	LIST Price	Dealer COST	Dealer PROFIT
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Letters

RIDGEFIELD, N. J.

Editor:

In one of the photographs on page 87 of your September issue, two men are shown cleaning copper tubing before using it in the refrigeration set-up of an airconditioning plant.

I was extremely interested in the tube-cleaning procedure, explained in the caption of the photograph. It's an excellent procedure to know about, in case I must sometime use tubing that inadvertently became dirty inside, so needs cleaning.

However, I think your readers may get the wrong idea from this photograph and its caption, and conclude that all tubing to be used for refrigeration must first be cleaned in the manner described in the caption. Over a period of years, I've had my men install many refrigeration set-ups for which copper-tube pipe-line runs were needed.

My men never had to clean the tubing, because never did they permit it to become dirty inside. Buy refrigeration tubing with sealed ends, and it comes to you 100% clean inside. Cutting off a piece that you don't have to use on the particular job, seal its both ends in a highly effective manner to keep it clean inside. Even using the extremely helpful tube-cleaning procedure described in the caption of your photograph, cleaning thoroughly a long length of small-size tubing would be quite difficult. That gives the incentive to keep the tubing clean, not permit dirt to get into it. Keeping out the moisture that comes in air is highly important.

Even with tubing kept thoroughly clean, of course, before you seal up a newly installed refrigeration set-up you blow a good blast of refrigerant through all the tubing to rid it of air in no uncertain fashion.

WALTER A. BAKER

GENERAL OIL COMPANY
Richmond 20, Va.

Editor:

I very much enjoyed your September issue and its fueloil management section studies, but in discussing the profit angle with a number of my competitors in the Richmond market can find very little reconciliation with your figures.

Are your figures based on corporated earnings after compensation of owner managers or does this item of profit actually mean the income for partners or single proprietor? At a recent meeting of the Virginia Petroleum Jobbers Association a discussion of earnings indicated that the majority, like myself, were netting about 2% before taxes in the corporate structure.

I realize that your figures are national averages and for cities the size of Richmond the indicated margin is 3.75¢; our margin is 3.20¢. Actually most of us seem to tie closer to the figures shown in your article on page 97 of the September issue.

WILLIAM E. STEARNS, JR.
President

FUELOIL & OILHEAT *has been making surveys of this kind for 20 years, so that we have considerable confidence in the figures in our September issue. Also, complete confidence can be placed in the study made by the*

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STEEL
for your
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The right steel makes all the difference in your oil heat combustion chambers. That's why it pays to use Ingersoll heat-resisting stainless steel!
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National Oil Jobbers Council and reported on page 97 of that issue.

The NOJC study, however, had a relatively small number of companies participating compared to our very large number and, further, the NOJC companies practically all were of the typical gasoline jobber type that handles fueloil on a relatively small scale.

Study the tables in our study, "Fueloil Business keeps growing" (Sept. 1956 issue) and notice that the participating companies reported 70% of their combined dollar volume was in fueloil and only 9% in gasoline. In Table 3 of the study, 56% of the gallonage involved was in the New England and Mid-Atlantic states; actually Bureau of Mines reports show that 58% of the annual gallonage is sold in these areas. Our figures, therefore, pretty generally exactly match the impact of the fueloil market.

The profits shown in our study (pages 72 and 73, September) are net profits before income tax; salaries of management are included under "General Overhead."

Season's Greetings

MAY THE NEW YEAR BRING

PEACE

GOOD WILL

AND

PROSPERITY

Hago

PRECISION NOZZLES

1120 GLOBE AVENUE

MOUNTAINSIDE, NEW JERSEY

Editor:

On p. 89 of your September issue, which I must say is an outstanding issue in many ways, you have an article by Kirk B. Shivell entitled "Why fueloil customers switch and what to do to hold them."

I make so bold as to add one item to this excellent article because to me it seems the point is highly important.

My point: To hold fueloil customers, make certain of delivering to them only excellent fueloil.

I speak with authority because my old fueloil supplier lost my account, and the accounts of many of my friends and neighbors, by suddenly delivering fueloil that caused oilburner trouble.

For five years I have had an academic interest in filters for the feed lines of pressure burners. Last winter, it seemed the fueloil being delivered was so good that no suction-line filter was needed for it. I had used the same filter element for three years and it had not plugged.

My pressure burner fires 1.25 gph, is connected to a 550-gallon outside tank, has a two-pipe hook-up of course, and has the filter in its suction line. Three years of using one filter element proved the oil needed little or no filtering, I concluded, especially in view of the fact that I was using a highly discriminating filter with especially small capacity.

After three years of using this small, special filter, the vacuum gage always on its output side showed a reading of only four to five inches. Oil came through the filter that easily.

Then came the bad load of fueloil!

Immediately after it was delivered, my better half was annoyed by a new noise. Investigating, I found the oil pump in the fuel unit whining loudly. It had never made a sound before. Checking further, I saw a reading of 21″ on the vacuum gage at the output side of the filter. The filter had plugged suddenly, and to obtain oil the fuel-unit pump had to develop the unusually high vacuum.

I removed the plugged filter element, found it coated with black stuff as thick as cup grease. Providing the filter with a new element dropped the vacuum-gage reading to four inches.

But three days of burner operation raised this reading to 20" and brought back the pump whine. More cup grease in the filter!

Knowing I had more than 400 gallons of bad oil in the tank, and determined not to change filter elements every three days until the bad oil had been used up, next I switched to a high-capacity suction-line filter. It was the size you use for a pressure burner firing 30 gph. Only after I used the bad load of oil and switched to a different oil company, did I switch back to the small filter I had used for years.

Local servicemen, I learned by questions put to them, had dozens upon dozens of service calls caused by deliveries of bad fueloil, sent out by the same company that had delivered bad fueloil to me. That oil caused breakdowns of burners which up to then had given little or no trouble.

Thus I humbly submit the thought: An oil company determined to hold its fueloil customers should consider selling them only excellent fueloil, which does not cause oilburner trouble.

If I owned or operated a fueloil company, I would filter domestic fueloil ruthlessly and mercilessly just before it went into my oil trucks. I'd use filters much finer, much more discriminating, than those located in the oil lines of my customers' oilburners. That would be one of the steps I'd take to try to hold my customers and to try to gain a reputation for selling only excellent fueloil.

I am not trying to make more trouble for the oil company that delivered troublesome fueloil to me and my friends and neighbors (the oil company already made enough trouble for itself).

But I hope you publish this letter, and that it causes at least a few fueloil companies to install terrifically effective filters to take the big pieces out of domestic fueloil before it is loaded into delivery trucks.

C. B. S.

❖

Du-Ross Anderson Co., Scranton, Pa., is now representing the Pacific Steel Boiler Div., National-U. S. Radiator Corp., Johnstown, Pa., in eastern Pennsylvania.

Joseph J. Byrne has been named sales engineer in the New York district, General Electric Company's Component & Intermediate Distribution Sales Dept., responsible for heating control sales in the New York Metropolitan area, Connecticut and northern New Jersey. Since 1946 Byrne has worked out of the New York office of Mercoid, specializing in heating control sales and conducting service schools for trade organizations.

R. C. Robertson, 273 E. Market Square, Lake Forest, Ill., will direct sales activities in Chicago and surrounding territory for Addison Products Co., Addison, Mich. Before joining Addison, Robertson served four years as marketing manager of the home heating and cooling division, General Electric Co. He also was assistant sales manager of Chrysler Airtemp and served in various executive sales capacities with York, Carrier and Superior Valve and Fitting Co.

- **Self-adjusting for wear — with sliding vanes.**
- **Compact and lightweight.**
- **Quiet operation at engine idling speeds.**
- **Proved Performance . . . Ask the man who has used Blackmer Rotary Truck Pumps through years of dependable service.**
- **Available in sizes from 1½" through 4".**
- **Capacities from 25 GPM through 500 GPM.**

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INDUSTRIAL, HAND AND TRUCK PUMPS, STRAINERS, PRESSURE CONTROL VALVES

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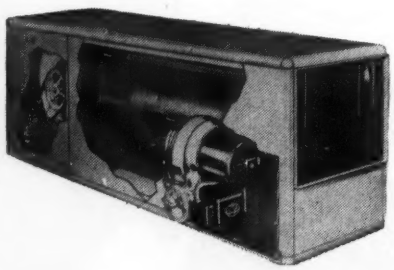
See Yellow pages for your local sales representative

New Products

Each New Products item has an identifying number. If you want more information on any equipment described here send the coupon on page 108 to FUELOIL & OIL HEAT, *2 West 45 St., New York 36, N. Y., and identify the product by circling its number on the coupon.*

New Worthington horizontal Furnace adaptable to add-on Airconditioning

MODEL HOH oilfired horizontal furnace by Worthington, which can be used as a horiztontal furnace in homes or as a suspended blower unit heater for commercial applications, is one of a new line of Worthington furnaces in 50 different sizes and types, all adaptable for the addition of summer airconditioning.



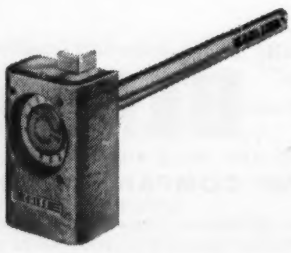
The HOH model is available in five sizes: 110,000, 150,000, 200,000, 250,000 and 350,000 Btu input. The unit, suitable for installation as a single unit or for multiple installation with zone control, is shipped assembled pre-wired and run tested. The cabinet is of heavy gauge steel finished in semi-gloss beige enamel. The burner is a Worthington pressure atomizing type.

Made by: Worthington Corp., Harrison, N. J.

Circle E1 on coupon, page 108

Terminal arrangement in Crise-Acro fan, limit Control permits easier Wiring

A COMBINATION fan and limit control introduced by Acro Mfg. Co. and offering separate fan and limit circuits, features an arrangement of the terminals to provide extra space for faster, easier wiring. The unit has ¾ hp fan switch rating, gold-plated contacts for limit circuit and precision Acro switches.



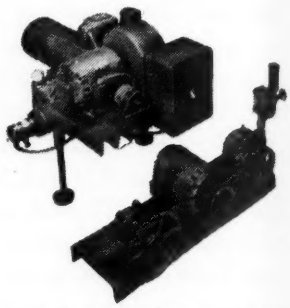
Fan and limit control settings and fan differential are adjustable; the limit differential is fixed at about 20°. The limit side may be used for line, low voltage or millivolt circuits. Models available with or without summer fan switch, with or without watchspring type bimetal.

Made by: Acro Manufacturing Co., Columbus, Ohio.

Circle E2 on coupon, page 108

York-Power "Econol" Units burn low-cost No. 5 oil efficiently

HIGHER efficiency from low-cost No. 5 fueloil is claimed for the York-Power "Econol" TH-60 and TH-84 oilburners in which 2,000-watt preheaters heat the oil to the burning temperature. Nos. 1, 2 and 4 oils may also be burned. Other features are an iris shutter to provide metered air control; a built-in viscosity compensator; an improved air-oil atomizing nozzle.



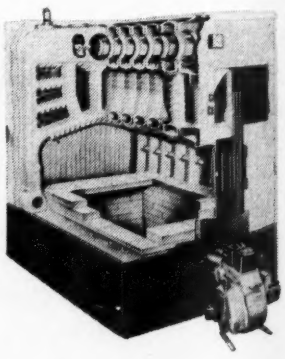
Model TH-60 burns from 5 to 20 gph of oil and has a maximum boiler rating of 60 hp. Model TH-84 has oil consumption of 7 to 28 gph and maximum boiler rating of 84 hp. Net standing steam radiations for maximum boiler rating are 6,170 and 8,650 respectively. Net standing water radiations for maximum boiler rating are 9,880 and 13,850 respectively. Both models are equipped with a 90-gph oil pump.

Made by: York-Shipley, Inc., Industrial Division, York, Pa.

Circle E3 on coupon, page 108

National-U. S. "47" Boiler-Burners to eliminate multiple Installations

TO ELIMINATE multiple installations of small boilers for hot water or low pressure steam commercial for heating National-U. S. announces a "47" series of large cast-iron boilers and boiler-burner units. The series includes 10 sizes of cast-iron boilers and eight sizes of oilheating units which include boiler, gun type oilburner and accessories.

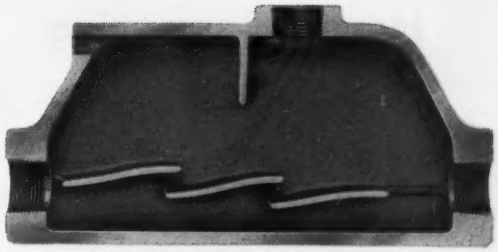


The "47" series boiler has net I-B-R ratings from 2,500 to 7,600 sq. ft. for steam, and from 4,145 to 12,160 sq. ft. for water. The boiler-burner unit has net I-B-R ratings for the 8 models from 2,500 to 6,400 sq. ft. for steam, and from 4,145 to 10,240 sq. ft. for water.

Made by: Heating & Air Conditioning Division, National-U. S. Radiator Corp., Johnstown, Pa.

Circle E4 on coupon, page 108

"READ WHY MORE AND MORE HEATING CONTRACTORS ARE INSTALLING TACO AIR-SCOOPS"



WITH A TACO AIR-SCOOP YOU INSTALL IT AND FORGET IT!

Here's Why:

First you install the Air-Scoop in the supply line. Second, you make a short connection from the Air-Scoop to the expansion tank. That's all you have to do. No call backs. No servicing!

A low-cost Taco Air-Scoop will make your installation complete . . . free of noise.

Use this coupon for more information.

Better Heating

Taco

Better With TACO

TACO HEATERS, INCORPORATED
1160 Cranston Street, Cranston 9, R. I.

CORPORATE OFFICE
342 Madison Avenue
New York 17, New York

IN CANADA
Taco Heaters of Canada, Ltd.
4 Gilead Place, Toronto 2

Send Technical Air-Scoop Data Sheet To:

Name.....

Address.....

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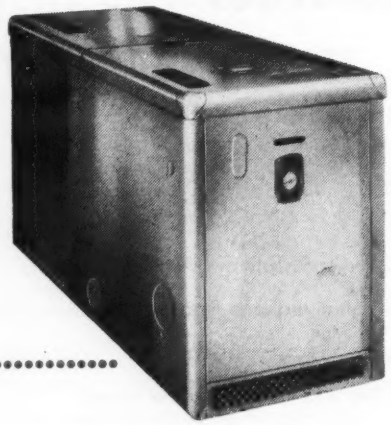
Here's Something
really
different
in Automatic Heating
package units
THE BETHLEHEM DYNATHERM



• The Bethlehem DYNATHERM offers all the features that make your sale easier—The Whirling Flame . . . Unit Engineering . . . Thermos Bottle Insulation . . . Beautiful Cabinet.

• The Bethlehem DYNATHERM creates satisfied customers—gives them more for their money in fuel savings (more than 40% savings are common) . . . pays for itself in 5 years!

• The Bethlehem DYNATHERM comes completely assembled and tested at the factory, thereby reducing installation cost, and assuring dependable, uninterrupted service.

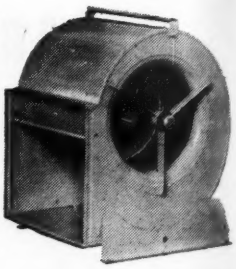
If you've been losing sales . . . why not get started selling this outstanding Package Unit with many exclusive features . . . that offers everything your customers have been looking for in Healthful Heating! Wire or write immediately for full information!

BETHLEHEM FOUNDRY & MACHINE COMPANY

BETHLEHEM, PENNSYLVANIA, U.S.A.

Torrington assembled Blowers feature newly-developed "Center-Lock" Wheel

ASSEMBLED blowers being produced for the first time by Torrington for residential airconditioning and warm-air heating and available in six sizes for both belt and direct drive include the recently-developed Center-lock wheel, which provides quiet operation and maximum air delivery.



Other construction features are: heavy-gauge steel and spot-welded housings; two motor mounting locations for each angle of discharge, and extra-long sintered bronze bearings with bearing ball assembly encased in rubber. A multi-position unit also available allows the user to assemble the housing feet in any of four positions.

Six wheel sizes now available in the blowers are 9½" dia. (7½" and 9½" wide), 10⅝" (dia. 8" and 10⅝" wide), and 12⅝" dia. (9½" and 12⅝" wide.)

Made by: The Torrington Manufacturing Company, Torrington, Conn.

Circle E5 on coupon, page 108

Standard's "Clix-On" adjustable top or side Take-Off cuts Inventories, Labor

HEATING and airconditioning fitting by Standard Furnace Supply called "Clix-On" is a fully adjustable top or side take-off of versatile application, eliminating the need of duplication of inventories and of extra fittings on the job.

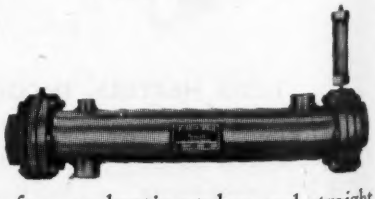
It features a positive method of attachment, providing a permanent connection with air-tight corners. Because it is quickly installed, savings are effected in time and labor.

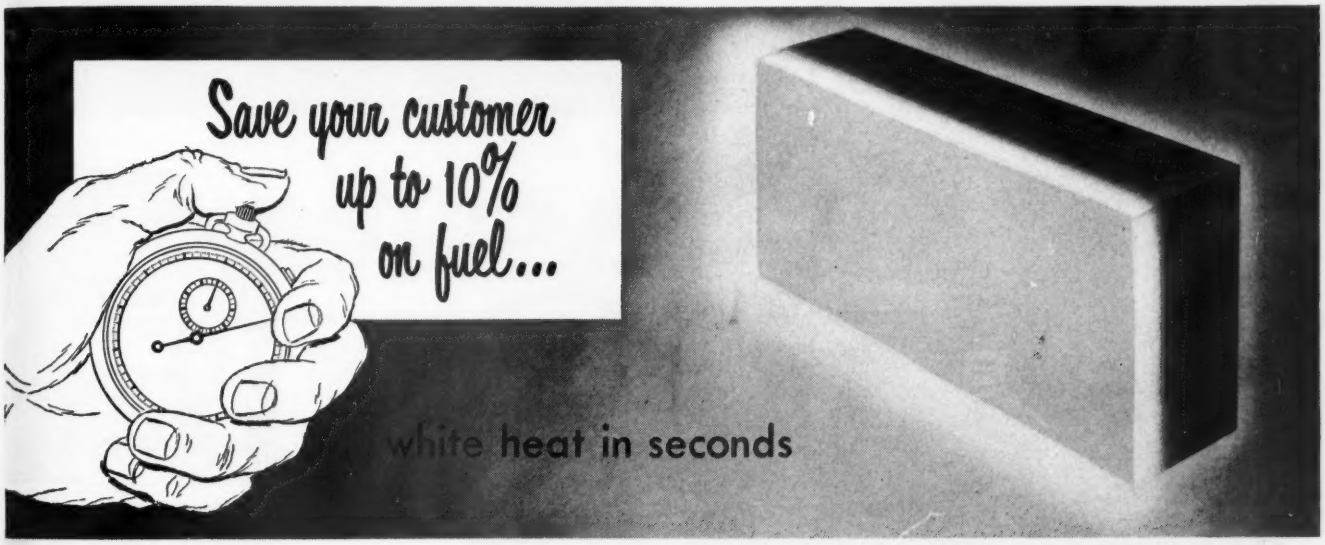
Made by: Standard Furnace Supply Co., Ltd., 714 South 72nd St., Omaha, Nebr.

Circle E6 on coupon, page 108

Paracoil safety-type fueloil Heater by Davis Eng. has 100% Counterflow

SAFETY-TYPE fueloil heaters, Paracoil Thermofilm by Davis Engineering, feature 100% counterflow, a safety barrier of heat transfer liquid between oil and water, and "no electric" warning system. Heat exchange is improved by use of extended surface on heating tubes and straight tube construction, oil in shell, water in tubes, providing





Stopwatch shows how J-M insulating fire brick *helps you do both!*

Seconds to cut! Seconds to heat! Any wonder Johns-Manville insulating fire brick are so widely used everywhere for oil burner firebox construction!

Save time and labor

J-M insulating fire brick save you time on the job! Quickly, easily cut with a hacksaw, they make it easy to build fireboxes to the exact size and shape manufacturers recommend for top efficiency.

Assure customer satisfaction

J-M insulating fire brick save your customers as much as 10¢ on every fuel dollar! Here's why:

Heavy, ordinary fire brick soak up heat, take longer to reach operating temperature. Lightweight J-M insulating fire brick eliminate this fuel waste! Within seconds after the burner goes on—they heat to white-hot intensity. Customers also appreciate the noticeable reduction in soot, smoke and odor made possible by higher combustion chamber temperatures. And they welcome the sound-deadening qualities of J-M insulating fire brick which reduce operating noise. Recommended insulating fire brick for domestic oil burner fireboxes: JM-20, JM-23, JM-26. For industrial use: JM-28 and JM-3000.

For information, see your nearest authorized Johns-Manville Distributor. Or write Johns-Manville, Box 14, New York 16, N.Y. In Canada, 565 Lakeshore Road East, Port Credit, Ontario.

For sealing against gas and air leaks, use J-M FIREITE* Asbestos Furnace Cement. For lining hearths of rotary burners, use J-M STANDARD FIRECRETE* —a hydraulic setting refractory—ready for use in 24 hours.

*Reg. U. S. Pat. Off.

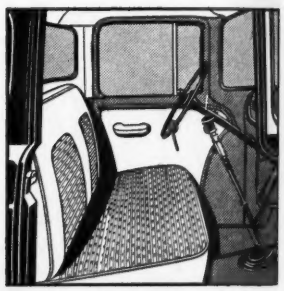
JOHNS-MANVILLE JM PRODUCTS

Johns-Manville INSULATING FIRE BRICK

FOR "SKIN-HEAT-IN-SECONDS" IN FIREBOXES

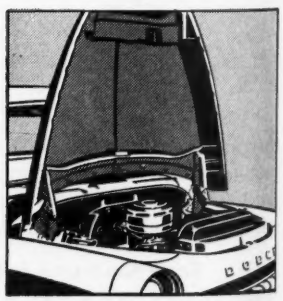
fueloil & oilheat

FIRST NEW



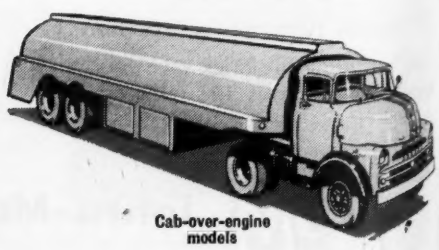
NEW COMFORT CABS

Industry's largest, for real stretch-out comfort. All-new seat design permits adjustment of back cushion and seat height, plus normal slide positioning.



FULL-OPENING HOOD

Exclusive!—Can be raised full 90° for easiest, fastest engine servicing, half-way for routine oil and water checks.



Cab-over-engine models

SHOWING

DODGE

PowerGiants

- **NEW giant-power V-8 engines!**
- **NEW push-button driving!**
- **NEW higher load capacities!**
- **NEW *Forward* Look styling!**

Get set to profit from a great *new* kind of truck—with *more* V-8 power and *more* payload capacity—with *more* eager-to-go snap than any other make on the road!

From 204-hp. pick-ups to 232-hp. tandems, today's new low-priced V-8 Dodge *Power Giants* deliver more truck per dollar—and more profitable payloads—in *every* weight class, 4,250 lbs. G.V.W. to 65,000 lbs. G.C.W.

New short-stroke Chrysler-engineered V-8's—with exclusive Power-Dome combustion—give you more miles per gallon, full power on *regular* gas. Increased power in famous, dependable Dodge 6's, too.

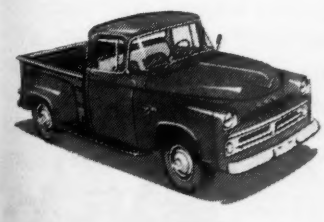
Push-button automatic transmission is still another great plus you get only in new Dodge *Power Giants.** First in any truck! Simple, sure, trouble-free. Just push a button, shifting is automatic.

Test-drive a Power Giant—V-8 or 6—soon! Get your Dodge dealer's deal *before* you decide on your new truck.

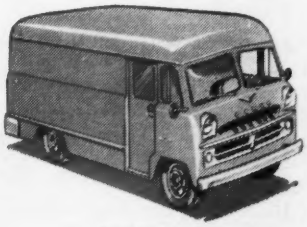
**Available on low-tonnage and forward-control models.*

DODGE TRUCKS

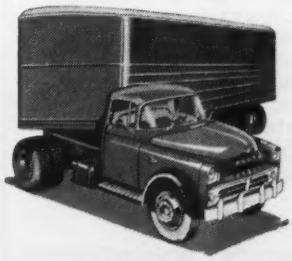
WITH THE *FORWARD* LOOK



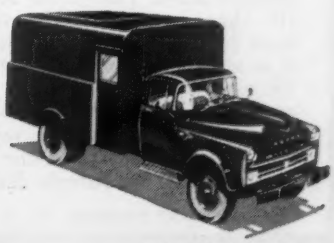
4 pick-up models, up to 8,800 lbs. G.V.W



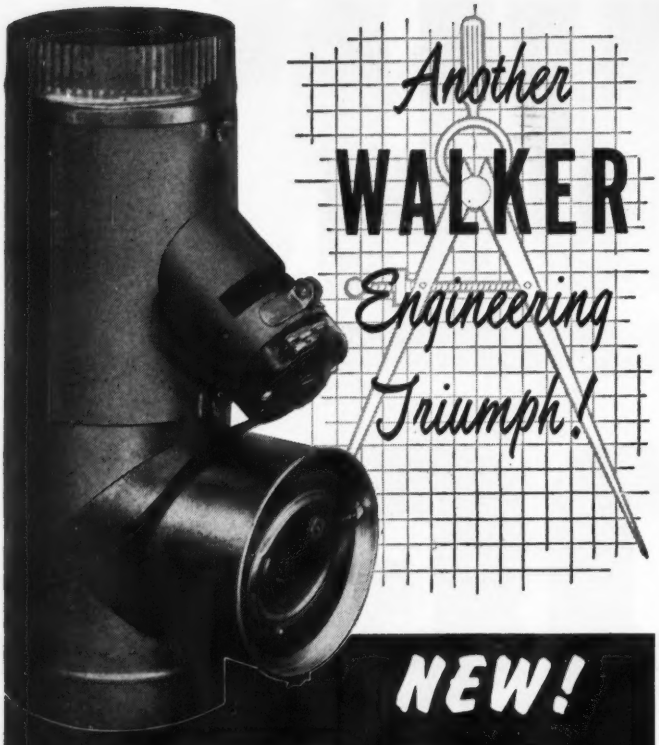
Door-to-door delivery chassis



Tractor models up to 65,000 lbs. G.C.W.



Cab and chassis models



NEW!

SHUR-FLO

Draft Inducer-Regulator

Corrects Troubles Caused by Insufficient Draft!

Completely Engineered Combination Unit Sells for Much Less Than What You'd Expect To Pay!

Here's a new product that will correct any difficulty caused by insufficient draft . . . and correct it at a cost so low it's almost unbelievable!

The new Walker SHUR-FLO draft inducer-regulator combination both inspirates and regulates. After draft has been established by inducer fan, the sensitive automatic Walker regulator holds draft at maximum combustion efficiency. SHUR-FLO keeps chimney dry, stops pulsation and smoking, eliminates soot and odors.

Big Aid to Contractors and Installers

With the Walker SHUR-FLO, contractors and installers can eliminate draft troubles in both old and new housing with a single installation. The product is particularly effective in modern homes where the trend is toward lower chimney heights. Installation is simple, fast and requires only elementary wiring provisions in most cases.

Tests Prove High Efficiency

The Walker SHUR-FLO has been exhaustively tested by the largest and most prominent industrial research organization* in the world. Their findings show that this new combination unit operates at highest efficiency under even the most adverse conditions. The SHUR-FLO unit is constructed of heavy gauge galvanized steel. The motor is a heavy-duty, fractional HP that consumes little current. Motor is specially built for draft inducer service and is mounted so that it is shielded from chimney heat. Motor requires little maintenance. Regulator and inducer fan are both constructed of corrosion-resistant material.

For the full facts on this revolutionary unit, see your supplier or write Walker Manufacturing & Sales Corporation, St. Joseph, Mo.

*Name upon request.

WALKER MANUFACTURING & SALES CORP.

1750 Penn St. St. Joseph, Mo.

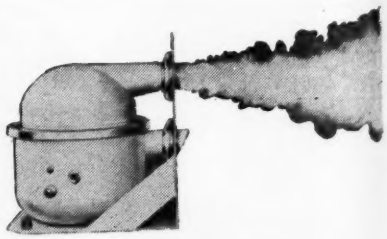
100% counterflow. The heaters, available in five sizes, lower installation costs because of smaller size, reduced weight and absence of electric wiring.

Made by: Davis Engineering Corporation, 30 Rockefeller Plaza, New York 20, N. Y.

Circle E7 on coupon, page 108

Walton Model WF humidifier's water Atomizer provides "real Humidity"

"REAL HUMIDITY" for those who want it is offered in the improved Walton Model WF humidifier which evaporates ten gallons of water into the air stream per day. This unit, which requires only water and blower connections for installation, produces a water vapor mechanically by means of a patented centrifugal atomizer.



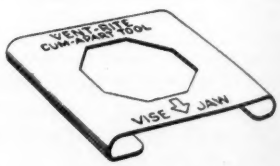
It provides positive results with burner capacities up to 140,000 Btu/hr. output. It is made of copper, brass and other non-ferrous materials.

Made by: Walton Laboratories, Inc., 1186 Grove St., Irvington 11, N. J.

Circle E8 on coupon, page 108

Anderson "Cum-Apart" Tool simplifies the Disassembly of Vent-Rite Valves

ESPECIALLY DESIGNED for use in taking vent-Rite venting valves apart for cleaning is Anderson Products' new Cum-Apart tool which holds the vent firmly for disassembly and, again for reassembly.



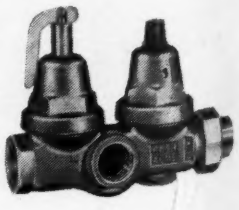
The tool comes in 3 sizes, with a size to fit all Vent-Rites with the Cum-Apart feature. Size "s," which fits Nos. 1, 2, 51 and 62 Vent-Rites is available to heating dealers without charge.

Made by: Anderson Products, Inc., 17 Tudor St., Cambridge 39, Mass.

Circle E9 on coupon, page 108

Cash-Acme Type CQ dual Control has ASME-listed relief Valve

CASH-ACME'S new Type CQ series integral dual control is equipped with an ASME-listed relief valve to provide positive pressure control and protection from both thermal expansion and emergency generated steam.



Installed directly to the top of the boiler, the dual control reduces incoming water pressure to the correct operating pressure of the

system, eliminating manual filling. Dangerous pressure rises are relieved at 30 lbs., the system pressure being automatically maintained above 14 psi and below 30 psi.

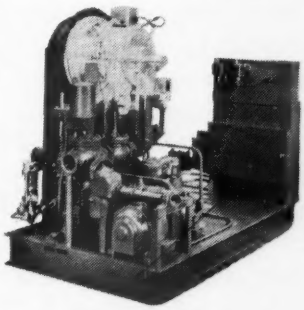
Available in either screwed female connections or with inlet for sweat copper connection; also, inbuilt check valve to prevent backflow of boiler water into home water supply system. Of rustproof cast bronze, sizes are ½" x ½" and ½" x ¾". Relief capacity 264,000 and 324,000 Btu/hr.

Made by: A. W. Cash Valve Mfg. Corp., 666 E. Wabash Ave., Decatur, Ill.

Circle E10 on coupon, page 108

Orr & Sembower oilburning System modernizes or converts Boilers

COMPLETE packaged combustion assemblies utilizing oil or combination gas-oil firing are being marketed by Orr & Sembower to modernize or convert existing boilers or obtain efficient operation from new boilers.



The system includes burner, automatic controls, forced-draft air supply, full modulation firing control, ignition, complete piping and wiring, and the refractory required for the burner throat. It is identical to the firing system used in the Powermaster automatic packaged boilers.

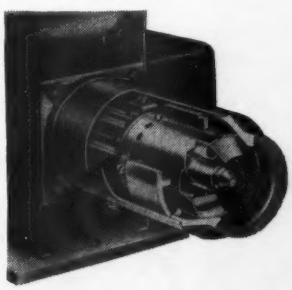
Various combinations of assemblies are available. Five sizes are available for maximum firing rates ranging from 3-million to 25-million Btu/hr. The burner is designed to handle fuels ranging from light distillate through heavy No. 6 residual oil. Pre-heaters are an integral part of the heavy-oil assembles.

Made by: Orr & Sembower, Inc., Reading, Penna.

Circle E11 on coupon, page 108

Easier Adjustment gives Arcoflame Shell Head Burner greater Efficiency

EASIER and more accurate setting of adjustments is featured in American-Standard's new Shell Combustion Head oilburner, designated Arcoflame Model ES-2. The new burner has an oil capacity range of .70 to 1.50 gph.



Replacement parts are standardized for quick servicing. Compact design and lightweight steel construction provide easy handling. Pedestal, flange or hanger mountings adapt burner to all applications. The ES-2 has a single shaft for fuel unit, fan and motor with flexible coupling.

Made by: American-Standard Plumbing and Heating Division, 40 West 40th St., New York 18, N. Y.

Circle E12 on coupon, page 108

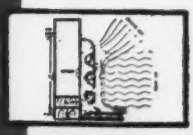
FOR FAST SALES...

FAST HOOK 'N EYE INSTALLATION

TRIMRAD Koven

BASEBOARD RADIATORS

...attach quickly—easily like a hook 'n eye...save time...keep installation costs down. This handsome 2 way baseboard radiator's perfect for new work or remodeling (can fit side by side with regular radiators)...space-saving, requires no more room than the baseboard it replaces...provides abundant even heat from floor to ceiling...assures faster, more efficient performance than ever before.



MORE HEAT BY RADIATION
% convected heat
% radiated heat

ALMOST INVISIBLE
Practically Flush with the wall

3 BIG WATERWAYS back front panel —hold more water; store and emit heat longer

LIGHTWEIGHT—one man can handle longest length

MILL-ROLLED WELDED STEEL gives maximum heat conductivity

NO FINS TO CLEAN or get clogged with dust

HEALTHY HOT WATER HEAT

WARRANTY AND 5-YEAR PROTECTION PLAN

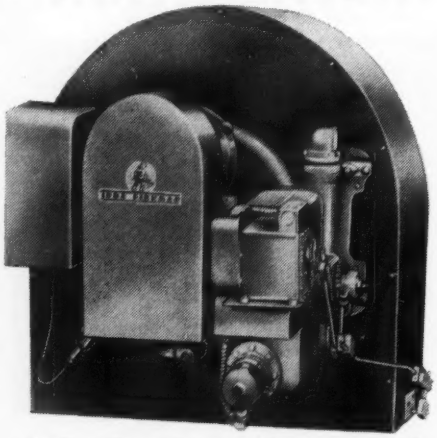
Nationally Advertised

Check for New Higher Ratings

WATERFILM BOILERS, INC.
a division of L. O. Koven & Bro., Inc.
154 Ogden Avenue, Jersey City 7, N. J.
PLANTS: Jersey City, N. J. • Dover, N. J. • Trenton, N. J.

New Iron Fireman rotary Oilburners feature integral air Registers

A NEW SERIES of Iron Fireman rotary oilburners, all with integral air registers, range in size from 9 gph to 125 gph. The burners will fire with No. 6 or lighter oil and are designed for either natural or induced draft.



Combustion air is introduced through the firing port, facilitating thorough mixing of oil and air and cutting excess air to a minimum. No checker floor for introducing secondary air is needed, since it is introduced through the integrally mounted air register.

The burner is shipped in two sections: the burner proper, and the air register. The two units may be bolted together easily on the job. This packaged construction, together with elimination of the checker floor, speeds installations markedly.

A modulating type automatic actuator provides the right amount of fuel and air to maintain desired water temperature or steam pressure. Primary combustion air is supplied by the burner fans; secondary air is introduced through the air register.

Made by: Iron Fireman Mfg. Co., Cleveland 11, Ohio.

Circle E13 on coupon, page 108

Oilfired "Queen of Scots" heating Boilers are available in 13 Sizes

A NEW LINE of Scotch Type heating boilers for automatic firing now being marketed by National-U. S. Radiator Corp. under the name "Queen of Scots" includes oilfired models available in 13 sizes for forced or natural draft.

For commercial and industrial application, the boilers have net steam ratings ranging up to 50,000 sq. ft. and net water ratings up to 80,000 sq. ft.

A feature of the "Queen of Scots" is the "wet back" design with rear combustion chamber completely surrounded by water-backed heating surface. It has low overall height making practical its installation in boiler rooms where headroom is limited.

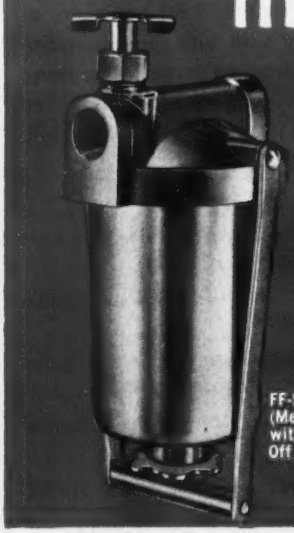
The boilers have hinged front doors for inspection and cleaning of the 3-in. steel boiler tubes; a rear access opening for inspection and access to firebox; a 4-in. observation port with protecting shutter in refractory-protected door. Tankless and storage water heaters are available.

Made by: National-U. S. Radiator Corp., Johnstown, Pa.

Circle E14 on coupon, page 108

the right filter for every use

Klemm FUEL OIL FILTERS



FF-530V (Metal Bowl with Shut-Off Valve)

FF-430G (Glass Bowl)

CHEMISTONE ELEMENT . . . True Filter, not a strainer; exclusive with Klemm.

- MODELS AVAILABLE FOR EVERY HEATING APPLICATION
- CHOICE OF GLASS OR METAL BOWLS
- BUILT-IN SHUT-OFF VALVES AVAILABLE
- EXCLUSIVE CHEMISTONE FILTER ELEMENTS

No matter what kind of an oil burning installation you're selling or servicing, there's a time-proved, customer-satisfying Klemm Fuel Oil Filter to keep it running . . . and running right. That's why it pays to insist on genuine Klemm Filters — "Millions Since 1932."

UL APPROVED MODELS AVAILABLE

Klemm PRODUCTS

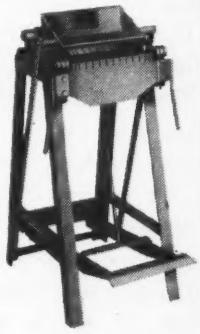
DIVISION OF KLEMM AUTOMOTIVE PRODUCTS COMPANY

1722 North Damen Avenue, Chicago 47, Illinois

EXPORT: Guiterman Co., Inc., New York 4 • CANADA: Elgee, Ltd., Toronto

Whitney Jensen 12" slotted Brake speeds awkward metal-working Jobs

A UNIQUE, small bending brake, with slotted jaws and apron, provides speed and economy in a number of awkward metal-working operations.



The upper jaw, lower jaw and apron of the #99 Whitney-Jensen 12" slotted brake contain matching 3/16" slots placed on 1" and ½" centers. Slots are ¾" deep in all members and the jaws are 12" wide, so the brake can handle any folded-up or seamed pieces from ½" wide up to 11" wide or better, depending on how the folds are arranged.

It has an overall height of 39", weighs 150 lbs., and takes a floor space of 24" x 29".

Made by: Whitney Metal Tool Co., Rockford, Ill.

Circle E15 on coupon, page 108

Worthington Airconditioner provides Heating and Cooling in single Unit

A FAN AND COIL airconditioner by Worthington for year-round airconditioning in multi-story buildings supplies both heating and cooling, plus air filtration and ventilation, in one compact unit.

Available in either recessed or cabinet type models, the units are connected to a supply and return water piping system emanating from a remotely located central heating and cooling system which delivers the hot or chilled water.

Special features include: a toe plate which eliminates unsightly return air grille; a drain pipe of heavy steel, coated with mastic to protect against corrosion; three types of discharge grilles; life-time lubricated fan motor connected by direct drive to the fans.

Made by: Worthington Corp., Harrison, N. J.

Circle E16 on coupon, page 108

Delta air Duct designed to reduce duct-work Costs, simplify Handling

DELTA AIR DUCT, an aluminum-lined fibre air duct, is designed to reduce duct-work costs, simplify handling on the job, yet provide all the heat distribution and flow of old style metal duct-work.

The body of the air duct is constructed of plies of long jute fibre kraft with all plies bonded with waterproof adhesive and the outer ply, asphalt saturated, for strength, rigidity and water resistance. It fits all standard metal elbows and tees and may be used for radial and lateral systems.

Made by: Delta Co., 333 West 24th Pl., Chicago, Ill.

Circle E17 on coupon, page 108

RADIATORS HEAT FAST WITH
GORTON VALVES
ESTABLISHED 1887
'THE SURE CURE FOR COLD RADIATORS'
for Radiators
for Mains
FAST VENTING VALVES
FOR EVERY STEAM HEATING SYSTEM--
Fast venting Gorton Valves make radiators heat quickly and evenly with ounces of vapor, instead of pounds of pressure. Available in 5 sizes for radiators and 2 sizes for mains. Gorton Valves permit the balancing of each radiator so they perform with maximum efficiency and insure perfect heating comfort and economy. For steam heat that can't be beat-insist on Gorton Valves!
GORTON VALVES
Cranford, New Jersey

STOPS PRESENT & FUTURE LEAKS

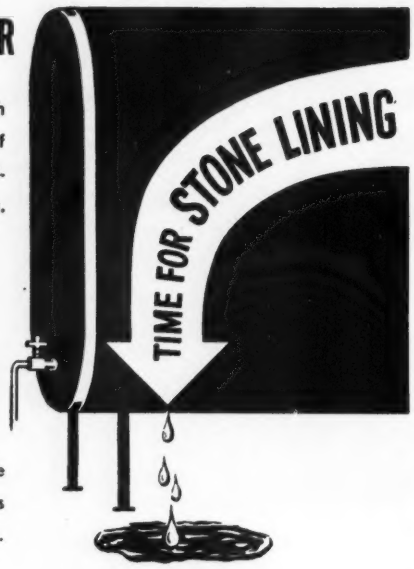
Mc GILLIS STONE BASE OIL TANK LINER

STONE LINER

A Product proven by HUNDREDS of Dealers in THOUSANDS of oil tanks.

FOR LESS THAN 1/3 OF THE COST OF A NEW TANK

Guaranteed to be at least twice as good as a new tank.



Available Only Thru Instructing Distributors

WRITE TODAY for the name of our Distributor Nearest You

Exclusive General Distributor

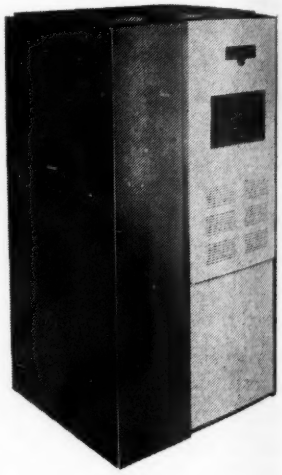
L. JAMES DEWOLFE

73 Prescott St., Reading, Mass.

MEMBER OIL HEAT INSTITUTE OF NEW ENGLAND Symbol of Reliability

Armstrong G6 return air Drop a neat Fit, on right or left

A RETURN air drop tailor-made to fit either the left or right sides of Armstrong's G6, 102 series line of furnaces, can be assembled and installed in less than 15 minutes. It is finished in rust-resistant, easily-cleaned Armstrong blue-baked enamel.



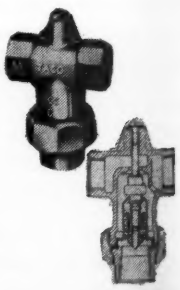
The ease of installation and the low cost to the dealer makes it more practical than home-made, hand-made duct work and results in a neater looking job. Drops are individually packaged and shipped flat.

Made by: Armstrong Furnace Co., 851 West Third Ave., Columbus 5, Ohio.

Circle E18 on coupon, page 108

Taco low-cost tempering valve Setting adjustable for from 120° to 160° Water

A LOW COST tempering valve introduced by Taco Heaters—the No. 503 fixed setting adjustable valve—can be set out to deliver any water temperature desired between 120°F. and 160°F. Factory-set at 140°F., the valve can be re-set on the job.



The thermal element is hermetically sealed and the use of volatile liquid in bellows or bi-metal for power is avoided. Entirely of bronze, brass and stainless steel, the valve is made in ½" size only for 1 and 2 bathroom installations.

Made by: Taco Heaters Inc., 1160 Cranston St., Cranston 9, Rhode Island.

Circle E19 on coupon, page 108

Adre electrical contact Burnisher prolongs life of Contacts, Relays

A POCKET-SIZED Adre contact burnisher, #160, has a micro-fine surface to give mild, controlled abrasive action for the removal of dust, grit and carbon build-up with a minimum removal of contact metal. It leaves contact clean and shiny.

The burnisher's protective, pen-type case is of an insulating plastic which permits its use on energized contacts.

Made by: Adre, Route 1, Box 38, Hales Corners, Wisc.

Circle E20 on coupon, page 108

new!

KECO

Remote-Reading TANK GAUGE

For Oil and Gasoline

➡ Versatile!

➡ Attractively Priced!

➡ Economical to Handle!

➡ Minimum Dealer Inventory!

FREE BULLETIN shows why the Keco gauge is a natural for users, distributors and dealers alike. Write Today!

KING ENGINEERING CORP.

Box 410 • Ann Arbor, Mich.

MANUFACTURERS OF GAUGING EQUIPMENT FOR OVER 30 YEARS

NOW THIS NEW NAMEPLATE...

Century
CEDAR RAPIDS, IOWA

ADORNS A COMPLETE NEW LINE OF 2 & 3 H.P.

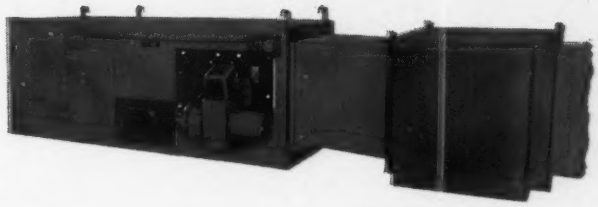
RESIDENTIAL *Year-Round* COMBINATION SYSTEMS

With remote air or water-cooled condensers

Every one of the 60 forced warm air furnaces in Century's 1957 line, both oil and gas models, can now be obtained as a combination year-round system, including A or H-type cooling coil assemblies in insulated cabinets finished in matching baked enamel.

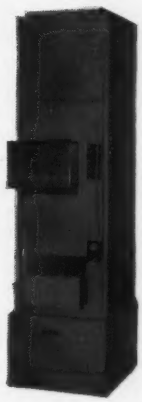
The air or water cooled condenser and compressor are combined in a single unit for remote installation. You may order complete systems or by components to reduce inventory, either with or without pre-charged and valved tubing.

And as for performance, Century's systems are tested under typical operating conditions in Century's modern cooling laboratory to be sure they will do the job for which they're rated!



Horizontals

Hi-boys



Counterflos

Lo-boys

2 *and* 3 H.P. REMOTE TYPE AIR-CONDITIONERS

FOR STORES, OFFICES, CLUB ROOMS AND COMMERCIAL ESTABLISHMENTS

- Air or Water-cooled
- Self-contained plenum with 4-way adjustable louvers
- Quiet, rubber-mounted blower
- Large service opening
- Factory assembled cabinet
- Choice of 3 color combinations

Century

CENTURY ENGINEERING CORPORATION
CEDAR RAPIDS, IOWA FOH

Please send me specifications and rating information on the Century line.

Company_____

Attention_____

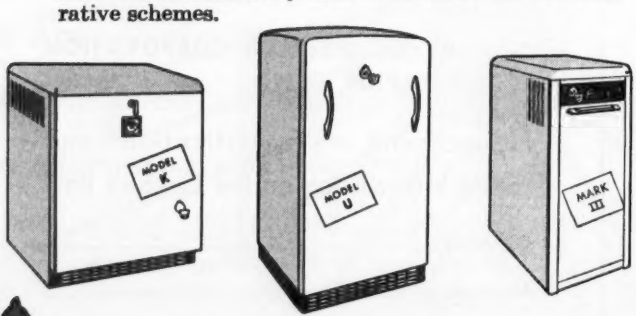
Address_____

you can't miss

Profit with Packets

The NATIONAL-U.S. PACKET all-in-one . . . automatic HOME HEATING UNIT affords outstanding features you can turn into profits

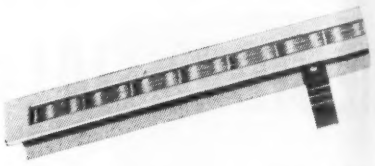
1. ADAPTABLE TO ALL LOCATIONS . . . with any form of forced hot water heating . . . radiant panels . . . radiant convectors . . . baseboard heating . . . and radiator heating.
2. LOW INSTALLATION COSTS . . . Packets are factory-assembled and shipped as one unit comprised of burner, boiler, domestic water heater, controls, and all accessories. Only simple connections are required.
3. ELIMINATION OF SEPARATE HEATERS . . . built-in water heater eliminates the need for a separate water tank and heater with their attendant installation costs.
4. EFFICIENT USE OF SPACE . . . compact size conforms with modern arrangements of using space efficiently.
5. ECONOMICALLY PRICED . . . low first cost makes the Packet suitable for homes priced within the budget range of a huge segment of buyers.
6. WINS CUSTOMERS AND PROSPECTS . . . Packets provide the heating comfort, heating economy, and plentiful domestic hot water that home-owners need and enjoy. They're smart in appearance and their white enameled jackets harmonize with all decorative schemes.



National-U.S. Radiator
CORPORATION
HEATING AND AIR CONDITIONING DIVISION
Johnstown, Pa.

Barber-Colman Grille gives continuous line Installation under large Windows

A NEW GRILLE, Barber-Colman's Uni-Flo Model ST, is designed for continuous line installation under large windows to prevent the cold convection currents which often occur near such areas. The air diffusing grille features an aluminum frame with a ¼" flange and either a steel or an aluminum core; and is suitable for use in window sills and other applications requiring horizontal installation.



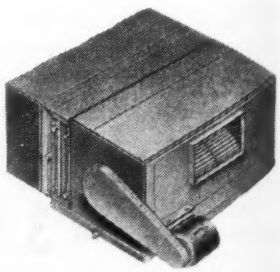
It is particularly suited to heating, ventilating and air-conditioning school rooms, hospitals and other public buildings where large glass areas are used.

Made by: Barber-Colman Co., Rockford, Ill.

Circle E21 on coupon, page 108

Westinghouse air handling Units require but single outlet Duct

AIR HANDLING combination units for general applications including ventilating, heating and airconditioning introduced by the Sturtevant Division, Westinghouse, require only a single outlet duct connection.



The units, designated as series 1600, are available in 13 basic sizes capable of handling 500 to 48,500 cfm. The line features standard blast and steam distributing coils, direct expansion and water heating and cooling coils. Designed for minimum space requirements, the heavy gauge, galvanized steel components are easily accessible.

Made by: Westinghouse Electric Corp., Sturtevant Div., Hyde Park, Boston 36, Mass.

Circle E22 on coupon, page 108

Crane Accessories, Booklet ease job of radiant baseboard Installation

TWO AIDS to easier installation of radiant baseboard heating Crane's new line of steel accessories and its new booklet outlining a step-by-step installation method.

The baseboard accessories, all die-formed from furniture steel and usable with either Crane Type R or Type RC baseboard, include: outside corners; extension panels, inside corners; right and left end caps; junction plates.

The 14-page booklet, illustrated with photographs, shows how to assemble section of baseboard and how to install them: Crane Type RC radiant convector baseboard at floor, and Type R, at both floor and ceiling.

Made by: Crane Co., Chicago, Ill.

Circle E23 on coupon, page 108

Announcing—

THE FEBRUARY SHOW ISSUE

This is our official issue for the 13th HEATING & AIR CONDITIONING EXPOSITION, Chicago, February 25-March 1st. Extra copies will be printed for distribution at the Show. It will be a focus of information for those around the Nation who will not attend the Show, as well as the thousands who will go to Chicago. There will be complete Show Data included. For Exhibitors it offers a special chance to "pre-sell" their Exhibits and their products. For Non-Exhibitors, it offers an opportunity to share in the very great interest our field will take in this Exposition. No change in the advertising rates. This is a "bonus" circulation issue for advertisers, and extra features for our readers. Every issue is good. This one is "extra."

ADVERTISING FORMS OPEN UNTIL JAN. 11th

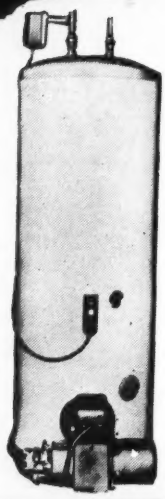
(Should We Reserve Space For You?)

FUELOIL & OIL HEAT, 2 West 45th St., New York 36, N. Y.

(Murray Hill 2-4786)

NEW QUIET AUTOMATIC OIL FIRED HOT WATER HEATER has

Unusual Hi-Recovery* features



120 gallons of hot water—Enough for 4 baths . . . and for as little as $4 per month.

Burns No. 2 Fuel Oil—Connects to same fuel tank for home heating.

HI-RECOVERY QUIET AUTOMATIC OIL FIRED WATER HEATER

3 TYPES

Glass lined—Copper lined
A.S.M.E. Galvanized: for larger homes, motels and apartments.

*Trade-mark reg.

30 & 45 GAL. SIZES

For further information, write or phone

QUIET AUTOMATIC BURNER CORP.
33-35 BLOOMFIELD AVE. NEWARK 4, N. J.

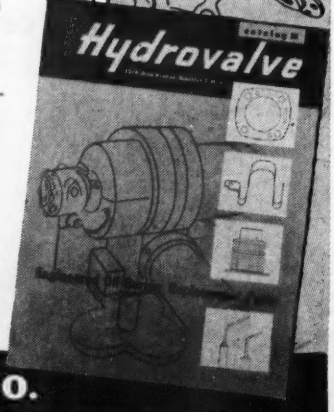
OIL BURNER SERVICEMEN:
What'll You Have?

- **ELECTRODES**
- **GASKETS**
- **FUEL UNIT PARTS**
- **SERVICE TOOLS**
- **SHAFT SEALS**
- **ACCESSORIES**

HYDROVALVE'S precision manufactured service parts guarantee top performance, quick installation and elimination of costly call-backs.

HYDROVALVE'S engineering leadership also brings you time-saving tools to speed service calls and save you money.

For your FREE HYDROVALVE Catalog of engineered replacement parts, shown actual size, write today to:



HYDROVALVE CO.
1319 Utica Ave., Brooklyn 3, N. Y., BUckminster 4-1330

Premier adds stainless steel tank vacuum Cleaners to Regular Line

MASS PRODUCTION of the entire Premier vacuum cleaner line with stainless steel tanks, heretofore available only on special order, will result in reduced costs and place the new models on a competitive level with the standard, industrial enamel-finished, steel construction models. The latter cleaners, formerly painted a single shade of gray, will now be finished in bright combinations of teal blue, Chinese red and light gray industrial enamel.

The stainless steel models also will carry out these colors as part of their trim. Along with the vacuum cleaner restyling, the Premier trademark has been revamped into a simple, block design, replacing the plain lettering formerly used.

Made by: Premier Co., 755 Woodlawn Ave., St. Paul 1, Minn.

Circle E24 on coupon below

READER SERVICE COUPON

FUELOIL & OIL HEAT READER SERVICE
2 West 45th St., New York 36
REPLY CARD DECEMBER ISSUE
Mail Now—Coupon Expires February 28, 1957

Circle numbers of new product items on which you want more information:

NEW PRODUCTS

E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
E11	E12	E13	E14	E15	E16	E17	E18	E19	E20
E21	E22	E23	E24						

ADVERTISEMENTS—Give page number and name of advertiser about whose products you want more information.

Page ..... Advertiser .....

Your Name .....

Company ..... **Position** .....

Street .....

City .....

Check Classification of principal dollar volume:
☐ **Fueloil Dealer** ☐ **Parts and Equipment Jobber** ☐ **Manufacturer** ☐ **Manufacturer Employee** ☐ **Manufacturers Rep.** ☐ **Oilheating Dealer** ☐ **Other**

Oilheating's future Growth

(Begins on page 44)

oil suppliers should underwrite some sort of an approved advertising program for particular dealers who have the "know-how" and the sales force to make the most of dollars spent for advertising. Consideration might be given to allocating a certain number of points per gallon to be used for advertising or other constructive sales promotion, this money either to be used for approved activities or lost.

To those dealers who need help in organizing sales forces or other phases of their sales activity, it seems to me that it would pay off for oil suppliers to have contact men of a caliber able to advise and to help along these lines. Generally speaking contact salesmen employed by major oil companies and independent suppliers have had no training and render small service, other than some entertainment value.

I certainly don't mean to be overcritical of the oil producers. From our experience they have done a marvelous job of developing a good product. In Boston, we have been almost entirely free of product trouble for several years now. Service troubles that can in any way be attributed to No. 2 fueloil are at a minimum. The importance of a good product is paramount and I believe that practically all of the oil producers should be congratulated on this point.

As to what we can see ahead in the equipment market for the next few years, certainly there is a situation that will call for most dealers changing to meet the changing market. There is a terrific replacement market coming up, but the approach is difficult. In Boston we have had good success through careful training of our servicemen in selling new and modern burners to replace worn out inefficient burners. I believe much can be done here to increase new burner sales through servicemen. While these sales usually do not create new plus gallonage, they frequently do win an oil account for the dealer who makes the sale, in addition to the normal profit on the equipment.

We believe much can be done with trained servicemen in selling new equipment and gallonage provided the interests of the public is safeguarded. By this we mean that a careful safeguard must be maintained against any exploitation to the detriment of the customer. Obviously unless such sales are properly policed, they could boomerang from the good-will standpoint.

To summarize the situation, I believe the average fueloil dealer must expect to face a much keener competition in the next few years, and whether he grows smaller or larger is going to depend on his ability to render a better service to the fuel buying public at a cost he can afford to pay. He is going to have to hire, train and maintain more and better salesmen that can bring in the new business needed to offset the losses he is bound to suffer from gas competition, price competition, heat pumps, atomic energy, and what have you. We are not pessimistic about fueloil holding its own if not priced out of the market, but to be realistic, I believe we all have to recognize that a better job must be done.

Great Things Keep Happening to
GENERAL FUEL OIL FILTERS

OUTSIDE

PORCELAIN-LIKE PLASTIC FINISH
COMPLETELY RESISTS ACID & OIL!

Model 1A-25A General Filter

A NEW porcelain-like, plastic finishing process recently adopted by General Filters accounts for the "new look" in GF filter bodies! This new finish is tough, long-wearing and loaded with eye-appeal. It won't chip, crack or discolor. It's completely *corrosion-proof!* A *NEW* reason why Generals are the easiest-to-sell filters your shop can handle!

PATENTED TREATMENT OF CARTRIDGE CENTER CORE FILTERS MORE!

INSIDE

New patented treatment inside General Filters 2A-700A and 1A-25A actually helps either model filter finer and faster! Treatment of this wire mesh cartridge core prevents any lint from passing into the oil. It also makes the surrounding felt *uniformly dense* so foreign particles can't channel through and clog burner nozzles. A General Filter on every fuel oil burner insures cleaner, better-burning oil, complete protection of burner parts, and *sure, easy* profit for you!

Only GENERAL Has "Step Design" *plus* Patented Center Core Treatment! *Any* Filter Works BETTER with a GF Refill!

GENERAL FILTERS, INC. 43800 Grand River Avenue, Novi, Michigan

IN CANADA: Canadian General Filters, Ltd., 39 Crockford Blvd., Scarborough, Ontario

Oregon OHI sponsors service School, moves to new Office

A BASIC 30-hour familiarization course on oilburner servicing took place at Willamette University, Salem, Oregon, Monday evenings from October 1 through December 3 under the sponsorship of the Oil Heat Institute of Oregon.

Walter Brunner, OHI technical director, and specialists in combustion, burners, pumps and controls comprised the faculty for the school aimed at better customer service and more effective selling for oil heat.

Other activities of the Oregon OHI include a move to expanded quarters in the General Petroleum Building, 920 N.E. 7th Avenue, Suite 204, Portland 14, Ore.

I-B-R heating-cooling Course will be held at Illinois U.

A MID-WINTER I-B-R heating-cooling short course will be held January 28-31 at the University of Illinois, Urbana, under the joint sponsorship of the Institute of Boiler and Radiator Manufacturers and the University.

Under the supervision of Professors Warren S. Harris and R. J. Martin of the University staff with the assistance of I-B-R Technical Secretary Arthur L. Wales, the course will highlight design and selection of combination heating and cooling systems. The new I-B-R Guide C-30 will be used to teach accurate calculation of summer cooling loads. Pipe selection fundamentals will be covered to provide a better understanding of design for either one-pipe or two-pipe combination systems.

The laboratory program will feature field methods of testing and adjusting combustion equipment and the determination of efficiency and incomplete combustion. The course will include also a tour of heating and cooling research facilities at the University, the I-B-R's research center and the new I-B-R testing laboratory at Urbana.

Lecture topics will include factors affecting heating and cooling loads; control and operation of heating and cooling systems; equipment for summer cooling of residences; chimneys and combustion, and how to avoid improper selection of boilers.

I-B-R research results presented will cover heating-cooling system performance; residential snow melting systems and domestic hot water. Laboratory and classroom problems will be calculation of winter heating and summer cooling loads for a residence; using I-B-R Guides H-20 and C-30; design and selection of equipment and controls for residential heating and cooling systems, and laboratory experiments in combustion and piping system performance.

Additional information on the short course may be obtained from R. K. Newton, division of University Extension, University of Illinois, Urbana, Ill.

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OIL ODOR
USE
NEUTRODA
NEUTRALIZES and DEODORIZES
FUEL OIL & GASOLINE ODORS
DUE TO FUEL SPILLS, LEAKS, AND STAINS
SPRAY
NON-INFLAMMABLE
NON-TOXIC
NEUTRODA SPRAY — Makes fast work of banishing fuel odors. Easy to use aerosol can permits fast deodorizing after every service call. Gets NEUTRODA into those hard-to-get-at places.
NEUTRODA POWDER — Just sprinkle it on. Odors vanish quickly, completely — also absorbs and removes most oil stains.
POWDER IN HANDY SHAKER
A little NEUTRODA on furnace filter — kills objectionable odors.
THE TANKIT COMPANY, Inc.
174 GOLDSMITH AVE. NEWARK 8, N. J.

NEW IMPROVED Vaporite
Automatic Humidifier
Fits any straight side warm air furnace
Series 555
Corrosion Resistant Stainless Steel Vapor Pan 4" x 15"
ONE SIZE . . . ONE KIT ASSURES LOWEST COST INSTALLATION AND MINIMUM INVENTORY EXPENSE
Vaporite No. 555 Humidifier comes completely assembled in one package. No extras to buy . . . no parts to assemble . . . no extra holes to cut . . . no pan leveling or tricky mounting.
NEW IMPROVED VALVE — Provides more positive drip-feed thermostat operation. Water drips fastest when furnace is hottest . . . pan is dry when furnace is cold. Adjustable for precise vaporization needs of each installation.
Write for Catalog FO-12
AUTOMATIC HUMIDIFIER CO., Cedar Falls, Iowa

Workshop Sessions are feature of Empire State fall Meeting

THE ANNUAL FALL MEETING of the Empire State Petroleum Association, Inc., New York, was held at The Concord Hotel, Lake Kiamesha, N. Y., October 21 through 24.

Several workshop sessions were featured on the program. Of special interest to fueloil distributors was the one on "Progress in Selling Oil Heat." Herbert M. Spade was chairman of the discussion, with Robert Gray, FUELOIL & OIL HEAT, as principal speaker.

H. Halsted Park, Jr., was chairman of a workshop on "Public Relations for the Jobber," with Admiral H. B. Miller as speaker. There were other workshops as well as regular business and committee meetings.

The Association voted to join the Oil Heat Institute of America and to re-join the National Oil Jobbers Council.

AMCA names division Chairmen, Directors at annual Meeting

ELECTION of division chairmen and vice-chairmen for each of six product divisions of the Air Moving and Conditioning Association and of five directors, each representing a product division, was held at the association's annual meeting held recently in White Sulphur Springs, West Va.

The Association also approved six standards and test codes for air moving and conditioning equipment, including those for steam and hot water unit heaters; central station airconditioning units and residential type fans. Included in the standards are terms, definitions, operating limits, standard sizes and similar data.

Among the chairmen named and division representatives elected to directorships were:

For Central Station Air Conditioning Unit Division: Chairman and a director, F. W. McKenna, chief engineer, Kennard Corp.; Vice-chairman, L. A. Macrow, division manager, Carrier Corp.

For Residential Fan Division: Chairman and a director, B. G. Krause, division manager, Cleveland Heater Co.; Vice-chairman, P. T. Finch, division manager, Hunter Fan & Ventilating Co., Inc.

Unit Heater Division: Chairman and a director, T. L. Arnold, division sales manager, Fedders-Quigan Corp.; Vice-chairman, J. J. F. Merrick, division sales manager, John J. Nesbitt, Inc.

Also named directors were E. C. Englert, sales manager, Hartzell Propeller Fan Co., Division Castle Hills Corp., and J. P. Johnson, division sales manager, The Swartwout Co.

65th Chapter of ASHAE holds charter Meeting in El Paso

PRESIDENT of the American Society of heating and Air-Conditioning Engineers, John W. James, Chicago, Ill., was installing officer and principal speaker at the charter meeting of the ASHAE's 65th chapter, the El Paso, Texas, unit, on October 4.

Officers of the new chapter are J. Otis Le Beau, Jr., president; George H. Jackson, vice president; James H. Brooks, secretary; Jack True, treasurer.

the First and Only

Removable Coil | All Copper Tankless Heater

. . . and ONLY TRADE MARK KAM REG. U. S. PAT. OFF. **has it . . . NOW!**

CUTS MAINTENANCE COSTS . . .
. . . ASSURES CUSTOMER GOOD WILL!

EXCLUSIVE KAM ENGINEERED

The KAM

DELUXE TANKLESS WATER HEATER DEFIES COMPARISON . . . *at ANY price!*

- Can be installed either VERTICAL or HORIZONTAL.
- Does NOT have to be completely removed in hard water areas.
- **REMOVABLE** copper coil unit permits re-use of shell or coils.
- Air vent PREVENTS heater from becoming air bound.
- Pre-tested to withstand 150 lbs. ACTUAL working pressure.
- All joints, coil tubing, copper shell, seams and bronze flange are SIL-FOS brazed to BRONZE fittings to insure permanent air tight, water tight union.
- LIFETIME Guarantee on all KAM WORKMANSHIP.

Write today!

Our 50th Anniversary

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239-249 ALABAMA AVENUE BROOKLYN 7, NEW YORK
In Canada—Diamolloy Co. Ltd., 2316 Gerrard St., E., Toronto, Canada
QUALITY PRODUCTS SINCE 1906

LITE·CAST
COMBUSTION CHAMBERS
QUICK HEAT LONG LIFE

TONGUE & GROOVE JOINTS
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PRE-CAST FLOOR
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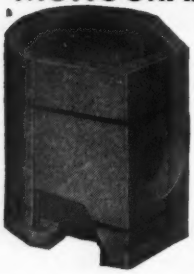
MONOGRAM has...



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.75 TO 12 GALLONS PER HOUR

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731 NORTH 35th STREET, PHILADELPHIA 4, PA.

IGNITION TRANSFORMERS

REBUILDING
AND
EXCHANGE SERVICE
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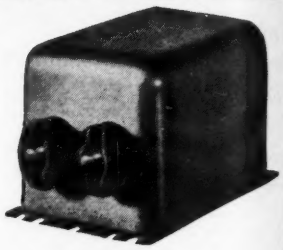


Burned Out Transformers Purchased

ACE TRANSFORMER COMPANY, INC.
326-330 E. 35th St., New York 16, N.Y.
Dependable Service Since 1937

ASHAE Nominations are made; Members will vote by Mail

NOMINATIONS for officers of the American Society of Heating and Air-Conditioning Engineers have been reported by the nominating committee to be voted on by the membership by mail through proxy ballots. Installation of the new officers will be held at the 63d annual meeting of the Society in Chicago February 25 to March 1.

Headed by Peter B. Gordon, vice-president of Wolff and Munier, Inc., New York, for the presidency, the slate includes Elmer R. Queer, director and professor of engineering research, The Pennsylvania State University, University Park, Pa., for first vice-president; Arthur J. Hess, president of Hess-Greiner & Polland, Los Angeles, Calif., for second vice-president, and Charles H. Pesterfield, professor of mechanical engineering, Michigan State University, East Lansing, Mich., for treasurer.

Nominees for three-year terms on the Society Council are Richard S. Dill, chief, heating and air-conditioning section, National Bureau of Standards, Washington, D. C.; William G. Hole, vice-president, American Air Filter of Canada, Ltd., Montreal; Peter J. Marschall, manager of engineering, Abbott Laboratories, North Chicago, Ill., and Wesley O. Stewart, branch manager, Johnson Service Co., Los Angeles, Calif.

Nominees for three-year terms on the Society's Committee on Research include Dominic D'Eustachio, Pittsburgh, Pa.; Elbert S. Howarth, New Kensington, Pa.; Howard R. Limbacher, Kalamazoo, Mich.; Edwin F. Snyder, Minneapolis, Minn., and John I. Trimble, Columbus, O. Nominated for a one-year term is Paul H. Yeomans, Philadelphia, Pa.

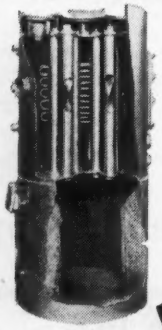
Explains master electronic Control for Illinois ASHAE

THE ULTIMATE in control systems for perfect conditioning was described by Charles M. Sander, market manager for electronic controls, Minneapolis-Honeywell Regulator Co., at the October meeting of the Illinois Chapter, American Society of Heating and Air-Conditioning Engineers.

Master panels known as supervisory data centers, Sander said, collect key operating data on air-conditioning, heating, refrigeration and ventilating systems, and also provide for remote control of the equipment from a central point. Often installed as an architectural feature of the building, these centers reduce costs and increase comfort, he said.

From information registered on the central control panel, the operating engineer can determine the efficiency of the equipments' functioning and locate troubles in the various systems without leaving the control room, Sanders explained. While control functions normally are performed automatically, the engineer can make changes from his panel as necessary to meet individual comfort needs or solve special conditioning problems.

CLIP THE COUPON FOR PROFITS...



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Send today for the complete profit story on the profitable New Yorker Line!

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HERE IS AN AMAZING NEW MONEY MAKER:

DESLUDGIT

LOW PRICED FUEL OIL ADDITIVE FOR #4, #5 AND #6 OILS.
GUARANTEED ON

30 DAY FREE TRIAL

- dissolves sludge
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- non-corrosive, non-explosive
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- keeps fuel system clean from tank to chimney

Request free test kit pictured above, and detailed brochure, on your letterhead.

Write to | STEWART-HALL CHEMICAL CORP. Mount Vernon, New York

Maryland Assn.'s promotion Program is double-barreled

A DOUBLE-BARRELED program of public relations conducted by the Oil Heat Association of Maryland, Inc., features the selection each month of the "Oil Heat Good Neighbor of the Month" and the answer to every program chairman's prayer — a speaker when one's needed.

The Oil Heat Good Neighbor award, which carries with it a $50 U. S. Savings Bond, goes to an employee in the Maryland heating oil industry who has demonstrated outstanding characteristics of good neighborliness in dealing with the public. A typical Oil Heat Good Neighbor is Betty M. Mendenhall of Baltimore, winner of the October award.

Miss Mendenhall has received many compliments for her pleasant, helpful attitude in dealing with customers and the general public during her 20 years' service in the fueloil and burner department of the Esso Standard Oil Company. Further, she is vice-president of the Desk and Derrick Club,

First woman *to be named "Oil Heat Good Neighbor of the Month" by the Oil Heat Association of Maryland was the October winner, Betty M. Mendenhall, 20-year employee of Esso Standard Oil Co. Above, J. Hollis B. Albert, association president, gives her the award and the $50 Savings Bond that goes with it.*

state vice chairman of the Oil Industry Information Committee and recipient of OIIC's 1955 silver award for her contributions to the organization. A typical Oil Heat Good Neighbor in all but one respect — she's the first woman to be named since the program was inaugurated.

As a community service, the Maryland Oil Heat Association is offering to program chairmen of women's organizations in the Baltimore area a speaker for their meetings with "no sales talk, no strings tied, no fee." An expert on her subject of "A Spotless Home and Time to Spare," the speaker goes into the why's and wherefore's of dirt and dust in the home in a half-hour talk aimed to be entertaining as well as informative.

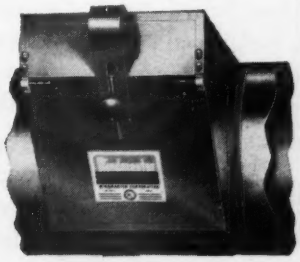
25th Anniversary Dinner held by Burning Oil Distributors

FUELOIL DISTRIBUTORS in the Metropolitan Chicago area recently gathered for a membership dinner meeting celebrating the Silver Anniversary of the Burning Oil Distributors Association.

New officers of the Association are J. Loeffler, president; Paul J. Anderson, vice-president; and Harry A. Balwin, secretary. Four directors were elected: J. E. Anderson, H. J. Curran, James Lupori and I. L. Schurman. Lee R. Wolfe is executive secretary.

Windmaster® The Modern Draft Control that's "QUICKER ON THE DRAW" and "FASTER In The SADDLE"

Windmaster®
Draft Controls
43 Vine St.
Columbus 15, Ohio



Galongage

The "Extra"
your customers will gladly buy!
A quality product by
APPLIED MECHANICS COMPANY
381 CONGRESS STREET, BOSTON, MASS

SAFE-FILL®
TAPERED NOZZLE PLUG
(Reg. U. S. Pat. Off. No. 2545233)

CUTS
Fuel Oil Delivery
TIME IN HALF.

SPEEDS UP VENTING, safe fill tapered nozzle plug is especially developed for use with VENT-ALARM Signals, it allows pumping speed to be stepped up.

TIGHT CONNECTION eliminates excess air to be sucked in through fill pipe while tank is being filled.

SAFE FILL tapered nozzle plug is the only approved and patented tight connection on the market—it has a safety valve that pops off at approximately 5 lbs. P.S.I. prevents rupturing oil tank.

SAVES TIME & LABOR, permits faster filling, drivers are able to cut down the pumping time by as much as 50%.

Type B1

Jobber Inquiries Invited

DEALER'S PRICES

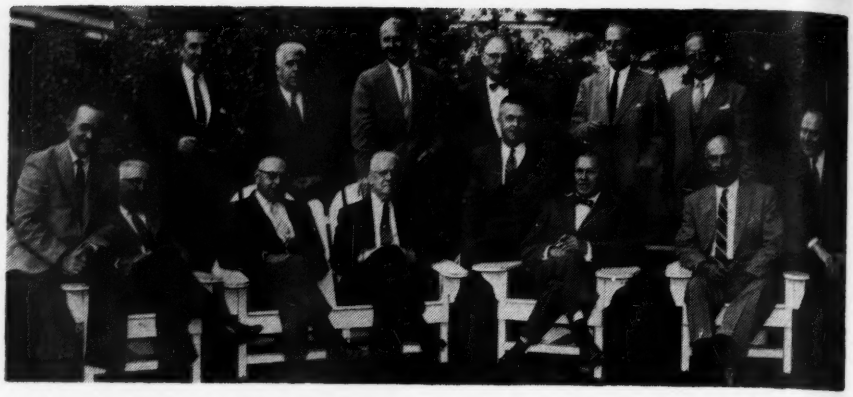
1-11/32" Hole in Plug for 1-3/8" O.D. Nozzle Tube, Plug Only (B1) $1.95 Each. Plug With Safety Valve (B2) $3.95 Each.

Manufactured by:

GASOILAIR EQUIPMENT CO.
P. O. Box 768, New Haven, Conn.

HEATING SALESMEN ATTENTION

We want top men capable of earning $20,000 per year. The product we offer is a complete line of warm air furnaces with patented features so unusual that every dealer in your area will give you his attention. You will work directly for the factory with no sidelines involved, complete control of your area of one or two states. National consumer and trade advertising leads furnished within your area. No house accounts. The finest opportunity in the heating industry to become more than a jobber salesman or manufacturers representative on a limited future basis. Territories available west of New York State and South of Pennsylvania. Send complete resume of experience with recent photograph. All replies confidential. Write Box #1344 c/o FUEL OIL & OIL HEAT, 2 W. 45th ST., NEW YORK 36, N. Y.



Old Timers Day *was celebrated September 18 at the 25th anniversary meeting of the Distillate Burner Manufacturers Association at Toy Town Tavern, Winchendon, Mass. Shown at the festive event are, front row, l. to r., Burt Watling, Carling Co.; J. W. Meyer, Jr., Alaska Freezer Co.; E. C. Leach, Lynn Products Co.; Henry H. Morse, Florence Stove Co. (ret.); James W. Townsend, Alaska Freezer Co.; Edward T. Isaac, Cronin Supply Co.; R. M. Sherman, Silent Glow Corp., and Gordon Chapman, Lynn Products Co. Standing, l. to r., are N. L. Sell, Detroit Controls; E. K. Priest, Lynn Products Co.; Norman F. Heym, Universal Electric Co.; R. L. Dennis, Boston Machine Works Co.; Paul Sibley, Worcester Taper Pin, and Louis Cleaves, Dover Stamping Co. (ret.).*

Essex County (N. J.) Dealers hear Panel on Airconditioning

THE NOVEMBER 8 meeting of the Essex County (N. J.) Fueloil Dealers Association, held at Orange, N. J., featured a three-man panel, which explored the potential business waiting for oilheating dealers who sell airconditioning.

Irving Oelbaum, general manager of Liberty Fuel Co., whose Climate Control Products Div. has been in the airconditioning business since 1945, led the discussion. With him were Philip Larkin, sales manager, and Bruce Morrison, installation and service manager.

Oelbaum made the point that cooling equipment has enabled his company to sell "heavy" from January to June, levelling out the normally slack season and permitting retention of employees who previously faced layoff after the heating season. He emphasized further that addition of airconditioning represented a natural extension of the oilheating dealer's line to enable him to offer year-'round comfort with oilburners, fueloil and cooling. And, importantly, Oelbaum related his company's experience in generally finding that service on airconditioning equipment was a profitable venture.

Larkin reviewed the technical differences between heating and airconditioning, but remarked that it is relatively easy for a heating man to become expert in selling and figuring cooling jobs. He also warned that not every warm air job can be adapted satisfactorily to cooling and that the salesman must be able to evaluate each prospective installation with this in mind.

Morrison covered the technical aspects of installation and service.

The general conclusion expressed by the speakers was that the oilheating dealer was remarkably suited to the addition of airconditioning to his line, both from his general technical background, his merchandising know-how and the realization that customer satisfaction is related directly to the quality of installation and service, both of which parallel his experience with his fueloil customers.

N. C. Oil Heat Council names Spencer, executive Secretary

THE NORTH CAROLINA Oil Heat Council has appointed as full-time executive secretary John Spencer, formerly inspector of heating systems and boilers for the city of Winston-Salem.

At a recent executive meeting, progress reports were presented by committee chairmen and decision was made to incorporate the Council.

Western Mass. Group changes Name to Oil Heat Council

WITH THE UNAMIOUS APPROVAL of the membership and executive committee of the Fuel Oil Council of Western Massachusetts, the name of the group was changed September 1 to the Oil Heat Council of Western Massachusetts, a title believed more representative of the entire membership and more directly related to the product being promoted, namely, oil heat.

Total advertising linage of 5800 up to September is reported by the Council which continues to advertise regularly the safety, economy and cleanliness of oil heat.

More than 150 members and their guests attended the second annual outing of the group on August 28. A highlight of the event was the presentation of a testimonial to Saul Simons in acknowledgement of his services as Council president.

N. C. Oil Jobbers name three new Directors at Convention

THREE NEW DIRECTORS were named to the board of the North Carolina Oil Jobbers Association at its annual convention October 15-17 at The Carolina, Pinehurst, N. C. C. D. Burnett of Mt. Olive was elected to fill the unexpired term of H. F. Dumaresq, who has left the oil business, and Charles G. Harris of Durham and A. C. Widenhouse of Concord were elected to one-year terms.

Other board members are Joseph L. Berry, Greensboro; Ed. P. Godwin, Wilmington; Frank H. Kenan, Durham; M. C. Newsom, Jr., Roanoke Rapids; Buck Young, Lexington; Claude T. Bowers, Warrenton; T. Ed. Brown, Wilson; R. E. Bryan, Goldsboro; Bruce B. Cameron, Wilmington; S. D. Bryan, Raleigh; Frank T. Erwin, Durham; J. Parks Gwaltney, Durham, and S. D. Wooten, Goldsboro.

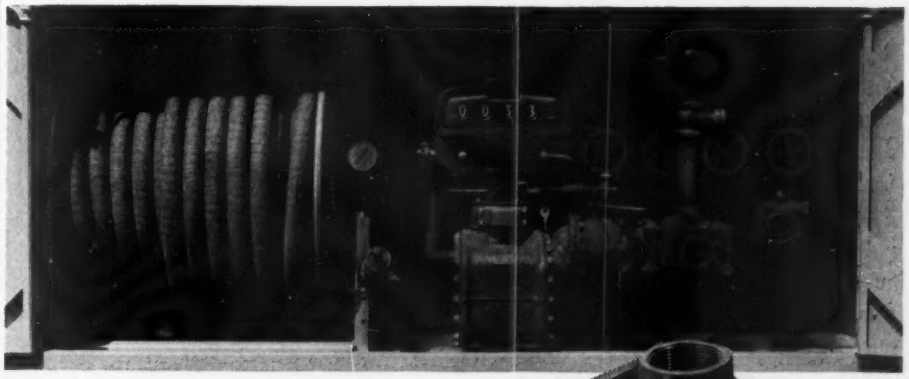
Business meeting speakers included Clint Elliott, president, National Oil Jobbers Council, who discussed jobber-supplier relations, and W. A. Parker, of the North Carolina association, who spoke on the group's history and future.

Banquet speaker was the Rev. H. Park Tucker, chaplain of the Federal Penitentiary, Atlanta, who talked on "The Making of a Man." Also on the program were various social functions including Coca-Cola and bingo parties for the ladies, a cocktail party, evening of entertainment and a dance.

22 airconditioner Makers to publish ARI standard Ratings

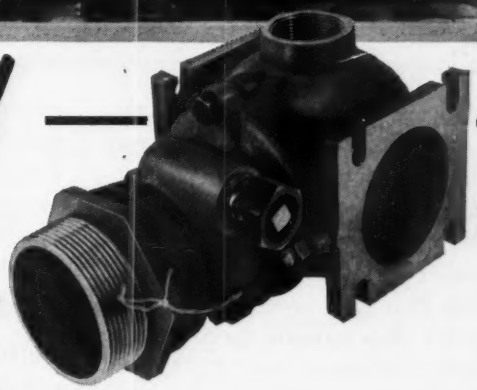
TWENTY-TWO room airconditioner manufacturers, who account for the major proportion of the nation's production in this field, have signed an agreement with the Air Conditioning and Refrigeration Institute, to publish room airconditioner Btu cooling capacity ratings certified according to the ARI Standard 110-56 testing method.

The agreement, aimed at ending public confusion in the purchase of these small airconditioners, was made at a meeting of the manufacturers and the room airconditioner section of the Institute in Absecon, N. J., September 6.



NOW!

A FULL FLOW MANIFOLD FAUCET THAT REQUIRES MINIMUM SPACE



Philadelphia Valve answers the long-standing need for a small, compact, full flow manifold faucet. This new faucet eliminates the need for bulky gooseneck piping. It takes up exactly the space required by a cross valve, and can quickly and easily be attached to any standard manifold. You can insert it either on the end of the manifold or between the cross valves or gate valves that make up the manifold assembly. A 1½" threaded outlet at the top permits speedy connection to a hose reel.

THREE TYPES ARE AVAILABLE:

1) STRAIGHT
2) BULK TYPE—*nozzle at downward angle of 22½°*
3) BUCKET TYPE—*nozzle at downward angle of 66°*

The faucet can be supplied in 2", 2½" and 3" sizes. Threaded and quick connector tips are available. Spouts and internal parts are all interchangeable with our regular line of faucet parts.

Write today for complete information and quotations.

PHILADELPHIA VALVE COMPANY

3417 Aramingo Avenue, Philadelphia 34, Pa.

Pacific Coast Distributors: Oil Marketing Equipment Co., 325 Fremont Street, San Francisco 5, Calif.
Howard Supply Co., 5125 Santa Fe Avenue, Los Angeles 11, Calif.

HAYWARD
Rotary Atomizing Burners
¾ to 12 Gph
Boiler-Burner Units
400 to 730 Sq. Ft. EDR Steam
Pressure Atomizing Burners
¾ to 10 Gph
Boiler-Burner Units
200 to 2000 Sq. Ft. EDR Steam
Write for franchise information:
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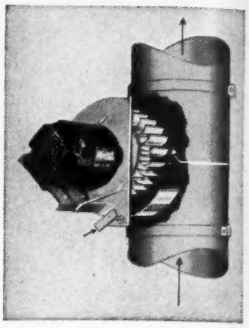
66 Kirkland Street, Cambridge, Mass.
Factories in Brooklyn, N. Y. and Taunton, Mass.

CURE DRAFT TROUBLES
TJERNLUND
"Auto Draft" Inducer
No smokepipe obstruction, just cut a rectangular slot in smokepipe and band on.
Can be mounted horizontally or vertically.
Save Fuel, Service Calls, Customer Goodwill
TJERNLUND MFG. CO.
2140 Kasota, St. Paul 14, Minn.



OHI series of advertising Folders again available

A SERIES of five four-page advertising folders from Oil-Heat Institute of America's "Treasury of Advertising," is again being made available. The folders, which are printed in two colors, have space on the fourth page for the individual company imprint. The series includes:

"Cheap service is no service," a discussion of why dealers must charge for service and an explanation of various necessary burner services; OHI #553.

"The most important equipment in your home," an explanation of the importance of the heating plant and its proper maintenance; OHI #653.

"Does your temperature rise when the thermometer goes Down," an explanation of the "Even Payment Budget Plan" and how it works with a budget plan estimate form for the individual customers; OHI #2353.

"Triple protection heating," an outline of a budget plan including fuel costs, emergency service charges and replacement of parts with a cost estimate form on the plan; OHI #2453.

"Security plan for better oil heating," a discussion of a Service Security Plan, including annual burner cleaning, soot removal, controls adjustment, burner regulation and year-round emergency service but without mention of price; OHI #2153.

Prices of the folders with three or four line company imprint are: $12 for 250; $20 for 500; $26 for 750; $30 for 1,000; $27.50 (per thousand) for 2,000 or more. Available from OHI, 500 Fifth Ave., New York 36, N. Y.

Also being offered by OHI as a sales aid for heating dealers are calendars featuring the sales twins, "Comfort & Economy." Special prices at this time are 24¢ each for 250; 23¢ for 500; 22¢ for 1,000; 21¢ for 2,500 and more. Envelopes are 1¢ each.

Better Home Heat Council to exhibit at Conn. Home Show

OIL HEAT will be displayed prominently to homeowners and prospective homeowners at the Home Show to be sponsored by the *Hartford Times* in the West Hartford, Conn., Armory, through exhibits to be staged by the Better Home Heat Council and many independent dealers. The Council has asked for volunteers to man its booth during the show scheduled for February 16-23.

New executive secretary of the Connecticut Better Homes Heat Council is S. E. Charles of West Hartford, Conn., who held a number of sales positions in the dictating machine business prior to his new appointment.

Queens oilburner Installers hold annual reunion Dinner

THE SEVENTEENTH annual reunion dinner and dance of the Licensed Oil Burner Installers of Queens, Inc., was held at the Valley Stream Park Inn, Valley Stream, N. Y. on November 29. John Hartmann was chairman of the entertainment committee in charge of the event.

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Saves 10% to 30% in fuel costs. Easy to use. Safe — harmless — efficient. Non corrosive to Iron, Steel, Brass and Copper. One jar services from 1200 to 1900 square feet of standing radiation.
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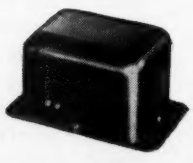

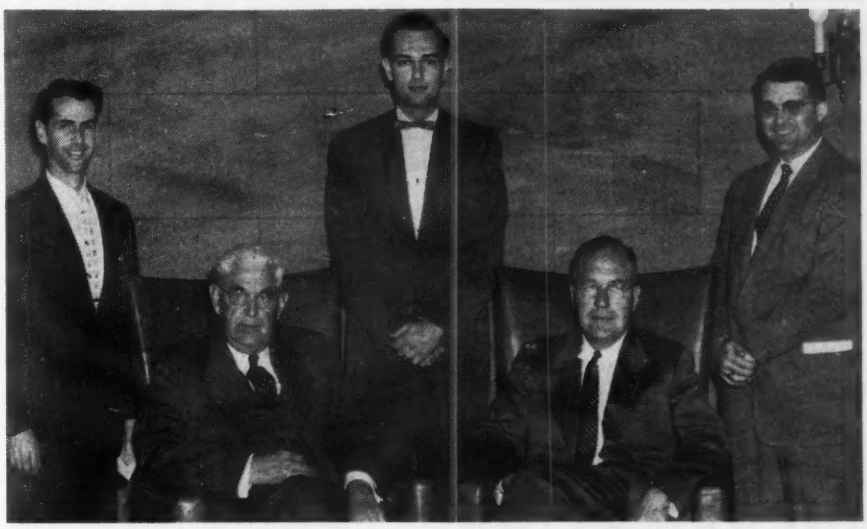

New officers *of the Maine Oil & Heating Equipment Dealers' Association, elected at the group's recent convention, are, left to right, Donald H. McGovern, executive secretary; Edward P. Hacker, president; H. Allen Mapes, secretary; Jacob S. Holmes, vice-president, and Gard Twaddle, Jr., treasurer. Newly-elected directors include William Roberts, Springvale; Leland Ludwig, Houlton; Byron Pride, Westbrook, and Charles Hamm, Bangor.*

Pennsylvania Assn. names Setzer "Oil Man of Year"

NAMED "Oil Man of the Year" by the Pennsylvania Petroleum Association at its annual fall convention in Pocono Manor Inn September 24 was Lawrence H. Setzer, president of The Setzer Petroleum Co., who played a leading role in the organization of the association ten years ago and served as its first president.

Setzer has been an oil man since 1927 and an oil jobber since 1937. The award of the title "Oil Man of the Year" of which Setzer is the first recipient will be continued as an annual convention event of the Pennsylvania Association.

During a business session of the convention, five new directors were elected: W. Ivan Simpson, Malvern; George Glenn, New Kensington; H. C. Taylor, Brookville; A. L. Simms, Wilkes Barre, and S. E. Lettieri, Clarks Summit.

Connecticut Petroleum Assn. has tri-level Skull Session

A TRI-LEVEL skull session was held November 29 in the Hotel Statler, Hartford, Conn., by the Connecticut Petroleum Association. Under the direction of experienced discussion leaders, the one-day management clinic was held in three separate sections, one for top management, a second for operative management, a third for service.

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MORYSVILLE

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► The *Boston School of Advanced Oil Heat Training* offers a 3-day course covering: proper firing rates—combustion chamber design—baffling of boilers—draft control—mating of air and oil patterns—nozzle application tests.

► For men with one or more years experience in the installation and service field *only.*

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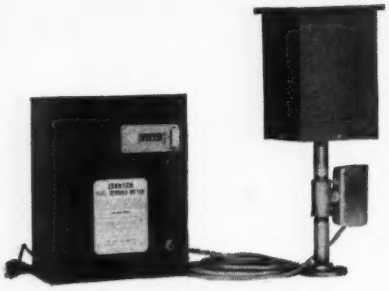

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Complete Equipment for the Oil Trade

Mass. Group hears Burkhardt, Olson; lists future Events

THE IMPORTANCE of the service department in combatting competition from gas was stressed by Charles H. Burkhardt, speaker at the October meeting of the Massachusetts Oil Heating Association, Inc., in the Hampton Court Hotel, Boston, Mass.

Gene Olson, Delavan Mfg. Co. engineer, who addressed the November meeting, discussed combustion problems, proper nozzle applications and qualities of a proper service kit, illustrating his talk with slides.

Speakers who will address future meetings of the organization include baseball's Lenny Marello in December; Bob Gray of FUELOIL & OIL HEAT with up-to-the-minute news of oil heat at the January meeting; Arthur Wales of The Institute of Boiler & Radiator Manufacturers on the subject "Cooling combined with Wet Heat" in February; Gordon Lenzi of Lennox Industries on "Cooling with Warm Air Heat" in March. Participants in a panel discussion to be held in April have yet to be named.

Hunter elected to second Term as Petroleum Assn. President

RE-ELECTED president of the National Petroleum Association at its 54th annual meeting in Atlantic City September 12 was Guy B. Hunter, president of Quaker State Oil Refining Corp., Oil City, Pa.

Other officers re-elected at a board of trustees meeting were: First vice-president, Paul R. Beck, Pennsylvania Refining Corp., Butler, Pa.; second vice-president, Rexford S. Blazer, Ashland Oil & Refining Co., Ashland, Ky., and treasurer, Guy B. Hunter.

Group II of New England OHI Service School meets Jan. 7

GROUP II of the 12th Annual Oil Heat Service School, sponsored by the Oil Heat Institute of New England and sponsored by local oilheat industry committees, will get underway in five Massachusetts towns the second week in January.

Designed to make better oilheat servicemen, the 10-week course will include a four-week course on controls by Minneapolis-Honeywell; installation, servicing and annual clean-up procedures by L. James DeWolfe; trouble shooting warm air heating by Mitchel Landau; servicing of Sundstrand fuel units by a Sundstrand engineer; installing and servicing wet heat safety controls by Bill Gleason, vice president of McDonnell & Miller, Inc., and servicing Delco heating equipment, controls and motors by R. W. Whitbourne, national director of Delco dealer training.

Opening meeting dates are as follows: Salem, January 7; Framingham, the 8th; Hyannis, the 9th; Quincy, the 10th, and Malden, the 11th. The course is presented by the OHI Department of Education and supervised by its director, Ivan C. Sutherland, assisted by Hollis L. Farrow.

Union County (N. J.) Oil-Heat Association has dinner Meeting

THE UNION COUNTY (N. J.) Oil-Heat Association had its regular monthly meeting November 15 at Mountainside, N. J.

Officers explained that a new project of the group will involve a survey and analysis of members' operating costs.

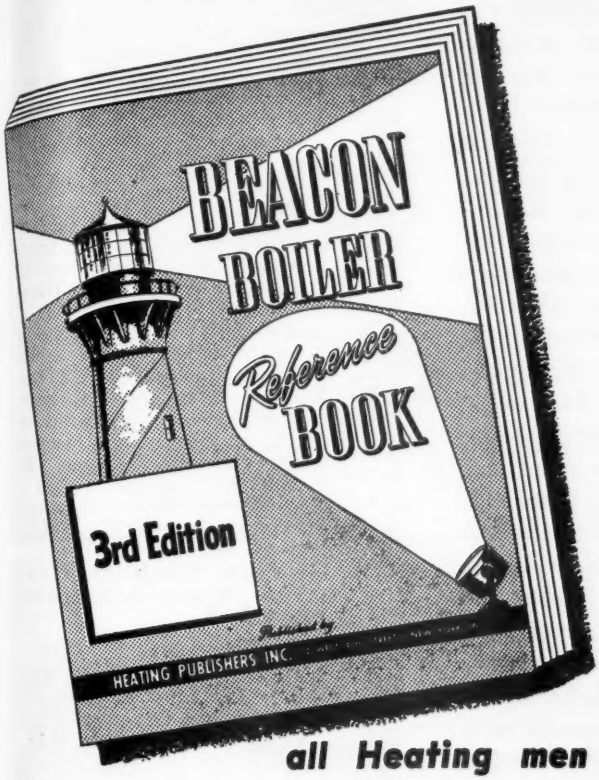
New York Association elects Panzera president for 1957

AT THE ANNUAL MEETING of the New York Oil Heating Association, New York City, A. J. Panzera, Ideal Fuel Oil Corp., was elected president.

Named to serve with him were William J. Ellison, Petroleum Heat & Power, vice-president; Joseph A. Ross, Jr., Modern Utilities Engineering, treasurer; Clyde O. Caldwell, Esso Standard Oil Co., secretary; and David J. Hamilton, George A. Hamilton, Inc., sergeant at arms.

Elected to the Board of Directors with terms expiring in 1959 are William J. Bennett, Arthur Bierman, Joseph Carini, J. H. Hawkins, Phil Hoffman, John G. Johnston, Harold Layman, E. B. Lipsett, Ed Marks, Ray Nathan, John Prigge, Edward Savitt, and K. Van Bramer.

You Can Save Time and Money



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This new Third Edition contains much more data than the second edition which was published many years ago. The size is 8¼ x 11¼ — very handy and convenient, it contains more than 200 pages and carries ratings on domestic heating boilers up to 3,000 sq. feet of steam and equivalent Hot Water.

All ratings are taken from the Manufacturer's own statements of specifications and technical information.

Heating Contractors and all persons engaged in installation of Boilers, including Dealers, Salesmen, Estimators and Service men, have highly endorsed the accuracy of information and stated how much help they derived from the contents of Beacon Boiler Reference Book.

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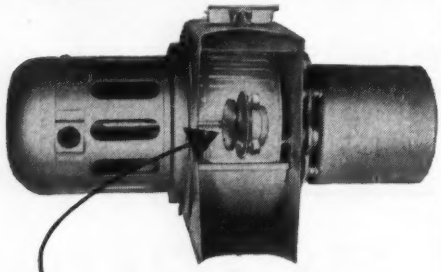
TO PROTECT YOUR OIL & GAS BURNER AGAINST BLOWER FAILURE



Use a SYNCRO-SNAP snap action centrifugal switch on the blower! This switch will immediately shut off the gas or oil flow if blower speed falls below predetermined normal, which would reduce air supply.

SYNCRO-SNAP detects speed alone, independently of voltage, load or heat. It operates on a fundamentally new principle which results in an accurately dependable and uniform operating life in excess of 1,000,000 cycles.

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offering their latest line of Quality Built Truck Tanks with the following exclusive features:

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Wisconsin OHI ad wins Award; Installation of Officers held

THE WISCONSIN Oil-Heat Institute and its advertising agency have received an award from the Newspaper Advertising Executives Association, Inc., in recognition of the superiority of an ad and cover design of its Oil Heat Tabloid. The award is presented annually for 100 outstanding ads.

At the November meeting of the group, new officers were installed as follows: president, Lavern Schaetzel, Germantown; vice presidents, Pirie Benson and E. H. Berger, Milwaukee; treasurer, John B. Weiler, Milwaukee; executive secretary, Harold M. Mottram, Milwaukee; directors, Julius Seiy, Cudahy; Robert Hopson, Waukesha, and Alfred Hegeman, Charles Matheny, Kenneth Kern, Harry Adams, Emery McNeil, C. D. Jacobus and Charles E. Stoffel, all Milwaukee.

A proposal to establish a training school to provide a refresher course for men now in burner service work has been approved by the membership.

Washington OHI recording good sales training Aid

AN INSTRUCTIVE and entertaining recording of a typical interview between a housewife, who had been approached by a gas company representative, and a heating oil dealer's representative whose job it is to re-sell her on oil-heating is available as a sales training aid from the Washington Oil-Heat Institute.

The record can be obtained for $5 by writing to Bob Elmslie, managing director, OHI of Washington, 400 Dexter Ave., Seattle 9, Wash.

Too many want to attend New Jersey service School

REGISTRATION for a fueloil service course at the Essex County, New Jersey, Vocational School was arbitrarily stopped at 100 due to a lack of instructors to handle more than that number of students though many more wished to attend. Instructors are now being sought for classes to augment the present schedule of Monday and Wednesday evening sessions being held under the sponsorship of the Fuel Oil Distributors Association of New Jersey.

Calendar of coming Events

DECEMBER
3– 5—National Heating & Airconditioning Wholesalers, Inc. (annual Fall convention), Deshler-Hilton Hotel, Columbus, Ohio.
6– 7—American Petroleum Institute Oil Industry Information Committee meeting, Biltmore Hotel, New York City.

JANUARY
8–10—Kentucky Petroleum Marketers Association (annual meeting and convention), Brown Hotel, Louisville.
17—Independent Oil Men's Association of New England, annual meeting, Statler Hotel, Boston.
20–24—National Association of Home Builders (annual exposition), Conrad Hilton and Sherman Hotels and the Coliseum, Chicago.
23–24—Northwest Petroleum Association (annual meeting), Nicollet Hotel, Minneapolis, Minn.
24—Oil Trades Association of New York, Waldorf-Astoria Hotel, New York.

FEBRUARY
7– 8—Sheet Metal and Warm Air Heating Contractors' Association of Indiana, Inc. (39th annual convention), Hotel Severin, Indianapolis, Ind.
14–15—Nebraska Petroleum Marketers, Student Union Building, University of Nebraska, Lincoln.
20–21—Iowa Independent Oil Jobbers Association annual meeting, Hotel Fort Des Moines, Des Moines, Iowa.
25–27—Missouri Petroleum Association annual meeting, President Hotel, Kansas City.
25–28—American Society of Heating and Airconditioning Engineers, 63rd annual convention, Conrad Hilton Hotel, Chicago.
25–Mar. 1—American Society of Heating and Air Conditioning Engineers Annual Meeting and 13th Exposition, International Amphitheatre, Chicago.
27–28—Wisconsin Petroleum Association, Hotel Schroeder, Milwaukee, Wis.

MARCH
11–12—Illinois Petroleum Marketers Association, 35th annual convention, Hotel Pere Marquette, Peoria.
14–16—Texas Oil Jobbers Association (annual convention), Rice Hotel, Houston, Texas.
19–21—Ohio Petroleum Marketers Association Spring Convention and trade exposition, Deshler-Hilton Hotel, Columbus, Ohio.

APRIL
16–18—National Petroleum Association, 54th semi-annual meeting, Cleveland Hotel, Cleveland, O.
25–26—API Board of Directors meeting, Dallas (site to be announced), Texas.

MAY
7–10—Mechanical Contractors Assn. of America (annual meeting), Hotel Fontainebleau, Miami Beach, Fla.

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"A JOB WELL DONE"

When you install an Eddington Filter, thereby protecting the valuable investment of your customer, you will have earned his good will, his future business, and his whole-hearted approval of "A JOB WELL DONE".

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Insure your installations with positive protection against clogged nozzles and unnecessary shut-downs due to water.

Install an Eddington Filter on every job!

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EDDINGTON METAL SPECIALTY CO.
Eddington, Pa.

Write for complete information and prices.

Changes and Additions are made within Taco sales Organization

TACO HEATERS, INC., Cranston, R. I., has made the following changes and additions within its sales organization. Peter G. Leddy, formerly vice-president—finance, is now vice-president and manager of marketing.

Robert H. Chaffee is now eastern regional sales manager; Wallace E. Johnson is western regional sales manager. Vincent F. Callahan has been transferred from Connecticut to Minneapolis, and Winthrop H. Guptill, Jr., replaces him in the Connecticut territory.

Additions include Walter Luger in New Jersey, Sal P. Ragonese in New York, and Robert F. Luley, now agent for Pittsburgh. Joseph R. Murphy, vice-president—sales, continues with headquarters in New York City.

Roper facilities expanded for Manufacture of Pumps

AN EXPANSION program newly-adopted by the Geo. D. Roper Corp., Rockford, Ill., involves a large-scale investment in new machine tools and the re-location of several pump division departments.

Some of the key operations of the pump division will be moved to the Roper ordnance plant, which has been in "stand-by" condition since shortly after the close of the Korean War. Installation of new machine tools into the present plant, which started the middle of last month, will be completed in March, 1957.

The expansion has been dictated, according to the company announcement, by the steady increase of the company's own pump business, and by the need for preparing for the growing market of newly-engineered hydraulic units.

General Controls inaugurates dealer instruction Meetings

THE FIRST in a new series of Mid-Atlantic dealer instruction meetings to be held by General Controls Company, Skokie, Ill., took place October 23 in Hastings-on-Hudson, New York, under the sponsorship of I. Burack, Inc., heating wholesaler. Ninety oil-heating dealers and their servicemen attended.

Harold Welnitz, General Controls director of education, conducted the meeting, using slides and a strip film. He introduced two basic new controls: the RS116, a combination operating, high-limit and circulator relay three-way combination, and the 5280 primary control which combines the operation of a primary control and circulator relay.

Also attending the meeting were Maurice R. Eastin, sales manager of the General Controls Perfex Division, and William Lord, the company's account executive.

Blackmer elects two V-P's at its annual board Meeting

ELECTION of two new vice-presidents took place at the annual meeting of the board of directors, Blackmer Pump Co., Grand Rapids, Mich.

Elmer H. Lanthorn now is vice-president and director of sales; Virgil A. Brunson is vice-president and chief engineer.

Lanthorn joined the company in 1952 as general sales manager, is chairman of the Rotary Pump section, Hydraulic Institute and a member of the Manufacturers' Liaison Committee, National Association of Oil Equipment Jobbers.

Brunson is a 20-year veteran with the company, having served as project engineer, development engineer and chief engineer.

Other officers re-elected are: John B. Caldwell, vice-president and director of manufacture; Wilford D. Sawyer, treasurer and controller; Carl J. Riddering, secretary; Herman Venema, assistant treasurer; Katherine H. McNamara, assistant secretary.

Three sales Reps added by Orr & Sembower, Inc.

THE SALES NETWORK of Orr & Sembower, Inc., Reading, Pa., manufacturer of Powermaster packaged automatic boilers, has been increased by three sales representatives.

The Harry Hoyle Contracting Co., Nyack, N. Y., has been named representative in Rockland County, N. Y. The central Arkansas territory will be covered by Allen Bullard Co., Little Rock; and northern New Jersey will be handled by C. R. Hutcheon, Inc., Livingston.

R. C. S. Tool Corporation moves to new Location

ON THE FIRST of November, the R.C.S. Tool Corporation moved to a new location at 227-229 East Front St., P. O. Box 661, Bloomington, Ill.

The company produces a line of Super Saws and blades, Korner King angle drill attachment and Super Speed bits.

Welcome *to University of Illinois campus at Champaign-Urbana is given by Paul M. Green, left, College of Commerce and Business Administration dean, to Dr. Paul Meier of Basel, Switzerland, winner of a Williams-O-Matic fellowship for one year of advanced study here. Looking on is M. P. Langdoc, Williams' export manager. The competition was conducted for overseas distributors of Eureka Williams Corp. in 24 countries.*

Helpful engineering Release offered by Bell & Gossett

AN ENGINEERING release by Bell & Gossett Co. offers solution to some problems of large circulated water systems, namely unheatable top-floor circuits, noisy, cavitating pumps, and unventable airbound radiation.

The answer to all these problems, says the release, lies in proper placement of the compression tank, the point of no pressure change in a system, regardless of circulating pump operation.

The new engineering release, "Pressure Effects of pump Location Relative to the compression Tank," is available without charge to heating and cooling system design engineers from the company at Morton Grove, Ill.

Manufacturing Plant scheduled for Wabash, Ind., by Honeywell

A NEW manufacturing facility will be constructed in Wabash, Ind., by Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

The 58,000 sq. ft., one story building will be used for the production of electronic air cleaning equipment and metal products for residential and commercial temperature control systems.

Honeywell recently entered the electronic air cleaning field. The firm has long been a leading Wabash manufacturer as the Honeywell Heating Specialties Co. and was founded by Mark C. Honeywell in Wabash. This company was merged with Minneapolis Heat Regulator Co., Minneapolis, in 1927.

G-E Home Heating and Cooling sales Conferences are held

A SERIES of regional fall sales conferences of the General Electric home heating and cooling department were held October 21 through November 10 at the Gulf Hills Dude Ranch, Ocean Springs, Miss., with leading G-E distributors and sales representatives from across the country in attendance.

Included in the company's 1957 line of products previewed by the distributors was the first new residential air-conditioning model to come off the assembly line of the company's new 15 million dollar home cooling plant in Tyler, Texas, department headquarters.

Steinen has a new Edition of oilburner "Nozzle Guide"

LATEST edition of "Nozzle Guide" for oilburner servicemen has been released by Wm. Steinen Manufacturing. Co., Newark, N. J.

Full information is given as to type and nozzle angle recommended for almost every model of oilburner, boiler and furnace unit installed and serviced by the serviceman. Copies of the guide may be obtained for $1 each by writing to the Steinen Co. Accessories Division, 43 Bruen St., Newark.

Delco announces new warranty Plan covering heat Exchangers

A NEW manufacturer's warranty and protection plan for the Delco-Heat line of residential heating equipment features a ten year protection plan on heat exchangers, in addition to the customary one year warranty on the entire unit. At the expiration of the one year warranty on the entire conditioner, Delco Applicance will, for the following nine years, replace or repair the originally installed heat exchanger without cost to the original purchaser.

Tops in ads *by Pullman Vacuum Cleaner Corp. of Boston, manufacturer of the "Never-Clog" furnace vacuum cleaner, won the company a "Certificate of Award" for outstanding achievement in the trade paper advertising category from the National Federation of Advertising Agencies. Arnold Z. Rosoff, president of Arnold Co., Boston Advertising agency, left, presents the award to Stanley Berns, chairman of the Pullman Corp. board.*

American-Standard conducts Courses on Heating, Cooling

TRAINING COURSES on basic radiator heating and on its Remotaire systems were held this month by American-Standard Plumbing and Heating Division at its Heating-Cooling School, Buffalo, N. Y., for distributor personnel.

The special seminars, held the weeks of December 3 and 10 under the direction of Prof. Clyde A. McKeeman, included classroom, field and laboratory work aimed at increasing the effectiveness of persons selling, installing and servicing heating and cooling equipment.

Heating Schools for Crane Salesmen in seventh Year

CRANE HEATING SCHOOLS on elementary heating and more advanced studies for Crane salesmen and wholesalers' representatives got underway October 15 in Evanston, Ill., for the seventh year. Instructor is Walter

These Books Can Help *You!*

Oilheating Snags

Gives the solution to many of the everyday snags that annoy you in installation and service. We've been working on them for years. All simple and practical answers to the most common problems. It's an 8½ x 11 inch book of 64 pages. **$2**

Heading Off Trouble In Domestic Oilheating

Contains articles about the most important precautions to take in installation and service and thereby cut down the number of service calls. The selection covers problems which are encountered most frequently by the average service men. This book is 8½ x 11 inches and contains 64 pages . . . **$2**

Installing The Domestic Oilburner

This is the first practical guide on oilburner installation. It contains the most significant articles from FUELOIL & OIL HEAT that cover all phases of installation step by step. 8½ x 11 inches—64 pages. Illustrated with numerous diagrams, charts and photos. **$2**

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Stop Oil Leaks!

WITHOUT DOWN TIME

and with UNIT in SERVICE!

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A New York Oil Distributor

". . . on seams of large oil tanks where weld was not perfect."
A Wisconsin Fuel Company

". . . . to seal small holes of oil storage tanks, created through condensation."
An Illinois contractor

". . . has done such a good job we do not want a service man to be without one."
A Pennsylvania heating company

". . . we punched a hole in the tank with an ice pick, then filled the tank and plugged the hole with the oil running out; it has held for months."
A Maryland contractor

". . . to repair leaks in domestic tanks inaccessible for repair by other methods . . . most satisfactory."
A Canadian contractor

OYLTITE-Stik is one of the best time-savers and trouble-stoppers you can find. See your suppliers for OYLTITE-Stik or write direct for free sampe.

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America's Foremost School . . . Famous for teaching
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Kehm, 26-year Crane veteran.

The first session, one of four basic heating schools, covered calculation of heat loss and heat gain, design of residential hot water and warm air heating systems, combustion requirements for oil and gas fuel, and electrical control cycles for residential heating and airconditioning. The three-week long school will be repeated three times during the year.

The first of four advanced heating schools, each two weeks long, started on November 5. These sessions cover heating with steam, hot water, and forced air, plus the most recent developments in chilled-water cooling and split heating system.

The first of three two-week-long commercial sessions was held November 26 with Kehm covering blueprint and specification reading and building codes and discussing a wide range of commercial heating equipment.

Regional Managers' Conference is held at Airtemp Ohio Plant

A ONE-WEEK managers' conference for regional managers of Airtemp's ten major sales districts was held the week of October 29 at the Airtemp plant, Dayton, Ohio, and marked the beginning of the Airtemp 1957 training program for company field representatives and for distributor and dealer personnel.

Conference sessions were devoted to reviews of company objectives for 1957, recent industry developments, sales, engineering and related topics.

A similar plant conference for assistant regional managers was held the week of November 5. Like 5-day sessions are being held during succeeding weeks—through December 21—for groups of field engineers and district managers. Starting in January, conferences for the sales, service and engineering staffs of distributors and dealers will be held locally.

Honeywell consolidates Sales for heating-cooling Controls

BECAUSE of the continued growth of Minneapolis-Honeywell Regulator Company's domestic temperature-control business in both heating and cooling and in "recognition of the fact that heating and cooling rapidly are becoming a single industry," the firm's sales administration in this field has been consolidated into a single unit to be known as the Residential Division, K. L. Wilson, vice-president who will direct the division, has announced.

Wilson said promotion of such advanced concepts as year-'round temperature control, residential zoning and the indoor-outdoor method of temperature control would be intensified and expanded because they are "much more than just desirable features; they are now necessities."

Carlin shows complete Line of Oilburners in new Folder

A SIX PAGE fold-out catalog, prepared by The Carlin Co., Wethersfield, Conn., features the complete line of U. S.-Carlin gun type oilburners for domestic and commercial applications.

A special section pictures and describes such construction and operating features as the high temperature Shell-designed combustion head, delayed opening oil valve, Verni-flame control, lifetime bus bars, wide-arc electrodes, quick removal of motor-fan unit and dual nozzles for higher capacity burners.

The ten models in the line each is described individually, ranging from the Model 400s with a capacity from 0.50 to 3.00 gph up to the Model 2000 whose capacity goes from 10 to a maximum of 20 gph. Detailed specifications, dimensions and shipping weights are shown for each. For example, in addition to capacities, data for each cover details on motor, transformer, fan, nozzle, fuel unit, electrode assembly, housing, coupling controls and electrical characteristics.

Orr & Sembower service School results in improved Service

RESULTS from a summer school for Orr & Sembower servicemen held for the second year at the company plant in Reading, Pa., already are evident, William B. Firman, O&S sales manager, has reported, in improved service for customers in initial start up of boiler equipment and in preventive maintenance on existing equipment.

Intensive training during the service school, a two-week, shirt-sleeve session, is directed toward providing factory-schooled service people in all distribution centers. Sessions held this year and last were attended by 100 service people. In addition, some 20 more took the one-week refresher courses offered last Spring by Orr & Sembower.

Borg-Warner offers builders "Basement to Roof" Package

FORMATION of a builder sales division to supply builders with a complete "basement to roof" package of home equipment, appliances and building materials from a single source has been announced by Borg-Warner Corp., Chicago.

Borg-Warner, which produces many products for the building trade including water heaters and York air-conditioning systems, may expand its diversified line further along the "basement to roof" idea. The new division is headed by Joseph P. Halpin as general manager, former national sales manager of Norge Builder Division. Sales objective of the new division will be to reach large residential builders and builders of hotels, motels, mobile homes, prefabricated housing and apartment buildings.

Sid Harvey service Lectures underway; 46th Store opens

THE FIRST in a series of 30 service lectures on fuel units being conducted by Sid Harvey, Inc., Valley Stream, N. Y., was held in Allentown, Pa., for members of the Allentown Oil Heating Association on September 24. It was followed by two more lectures at the Long Island Agricultural and Technical Institute, Farmingdale, N. Y., on October 9 and 16. The lectures are given by the company's sales engineer, Bob Ravener, who uses color slides for illustration. The series will be concluded by January 11.

The 46th Sid Harvey store—and twelfth in the Metropolitan New York area—was opened recently at 1842 Newbridge Rd., North Bellmore, N. Y. Managed by a long-time Sid Harvey salesman, Cappy Schroudera, the store will carry the full line of Sid Harvey replacement parts.

❖

Miller & Chitty Co., Union, N. J., has been appointed manufacturers' representative by Cleaver-Brooks Co., Milwaukee, Wis., for the sale of its boilers and equipment in northern New Jersey and Staten Island.

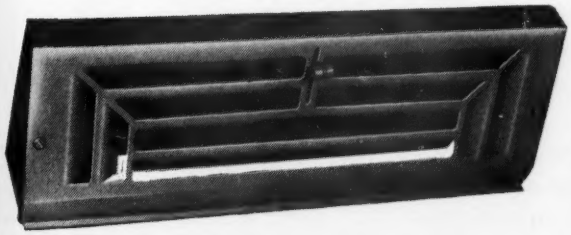
Shell oilburner Lab

(*Begins on page 37*)

low-capacity power burner, an unusual smokepipe economizer, and an oilfired absorption-type airconditioning set-up that's powered summer as well as winter by an oil flame (think of a gas-fired refrigerator, if you wonder how this cools air in summer).

The unique low-capacity power oilburner is a Shell development that officially is still under wraps, but the accompanying photographs will give experts a few ideas about it. Shell development experts seemingly produced this burner design with proper oilfiring of smallest water heaters in mind, for one thing; for the new burner fires nicely at rates down to one-tenth gph. It can be adjusted easily to produce a flame of conventional color, mostly yellow, for example. But in addition it can easily be adjusted to produce a flame that's 100% blue and absolutely silent. It's of the atomizing type with usual jump-spark ignition, but is unusual in that it performs equally well using kero-

MODEL MB-MERCO BASE DIFFUSOR
Perimeter diffusor for continuous baseboard type installation



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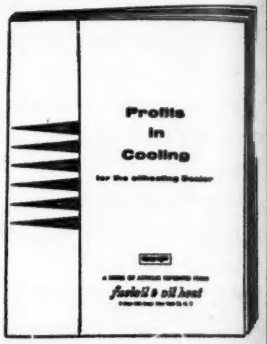

sene or 100% cat-cracked domestic fueloil.

In addition to working at producing new facts about fueloils and oilburners, the men at the Shell laboratory work at presenting these facts to the oilheating industry. So far this year, eight groups of men have attended educational courses given at the laboratory. These men were employees of Shell fueloil jobbers and included key personnel, salesmen, and installation and service managers. At the lab, they received the benefits of truly expert instruction on oilburner types, the fueloil requirements of different types of burners, installation and service work, and frequently encountered field problems.

The Shell Oilburner Laboratory, Sewaren, N. J., established in 1930, is impressive because on the one hand it gives evidence of high-level, university-type consideration of technical problems related to oilheating equipment and the fuel needed for it, while on the other hand it gives evidence of dirty-hand, on-the-job kind of work related to actually installing and servicing typical oilburner equipment.

❖

John J. Burns has joined the national sales organization to arrange franchises with fueloil dealers for distribution of Hy-Test 303 Corp., Rutherford, N. J. Burns has a background of 20 years experience in the industry having served with John Eggers and Bros., Jersey City; Behrens Bros., North Bergen and George Fangmann & Co., Jersey City.

Motel Comfort

(*Begins on page 62*)

viding as much or little heated air as may be desired.

This one unit will provide adequate heat for all requirements in northern Illinois.

The second unit in each room serves two purposes. More air and radiating surface is required for cooling than for heating—consequently two units for summer cooling. A somewhat secondary purpose is served when heat is required, for even though the fans cannot be considered noisy, they operate more quietly at half speed than at full capacity. With two units operating at partial speed, even the most sensitive should not be annoyed by the sound.

It should be mentioned that while the operation of the units at Shoreline Lodge is manual, provisions can be made for several degrees of automatic operation. The pumps can be started automatically.

The system could be switched from cooling to heating or heating to cooling automatically. The units in the rooms can be arranged to operate from thermostats.

On this installation the owner changes from heating to cooling or the reverse by operating manual water valves and switches.

A prospective guest stopped at the door. To make conversation, he asked Olson "How are things going?" Little did the prospect know that when Olson said "Everything is perking just fine," that he was praising his airconditioning system.

Dist. Div. Chapters

(*Begins on page 88*)

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South Carolina Oil Jobbers Association
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W. L. Heinz, Secretary

TENNESSEE
Tennessee Oil Men's Association
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L. L. Jennings, President
Elizabeth Walker, Secretary

VIRGINIA
Richmond Oil Heat Association
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Richmond, Virginia
Lucius F. Cary, President
Dave Catterton, Secretary

Tidewater Oil Heat Association
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J. J. Hassell, Jr., President
William Thomas, Secretary

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Chapter of West Virginia
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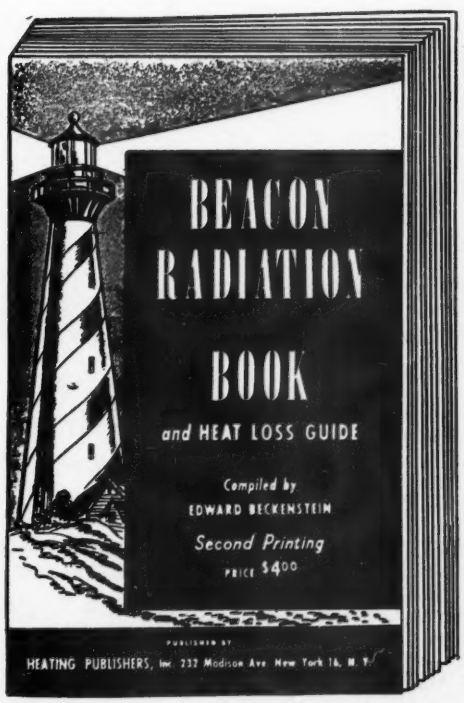
			HW	58	67			89	96
		29'	ST	41					49
			HW						



THIS pocket-size book shows the required radiation for all rooms of ordinary size with from one to three windows, one to three exposures, and every combination of walls exposed. Figures are based on calculations of the space by the Btu method on a 0° to 70° design temperature. A table shows corrections for other design temperatures.

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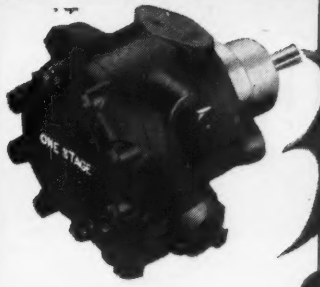

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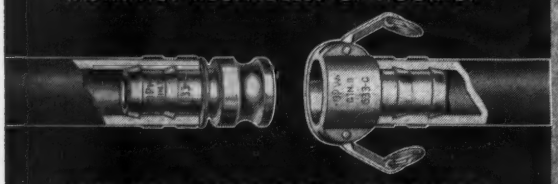

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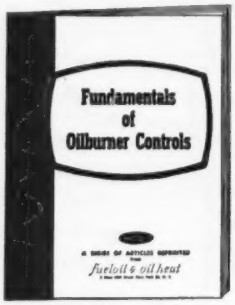

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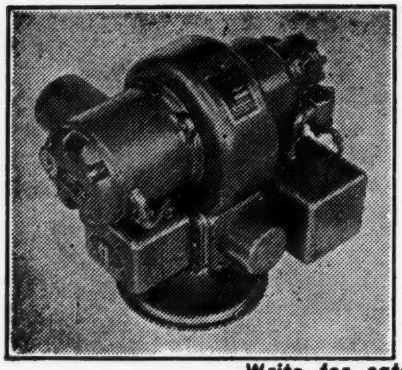

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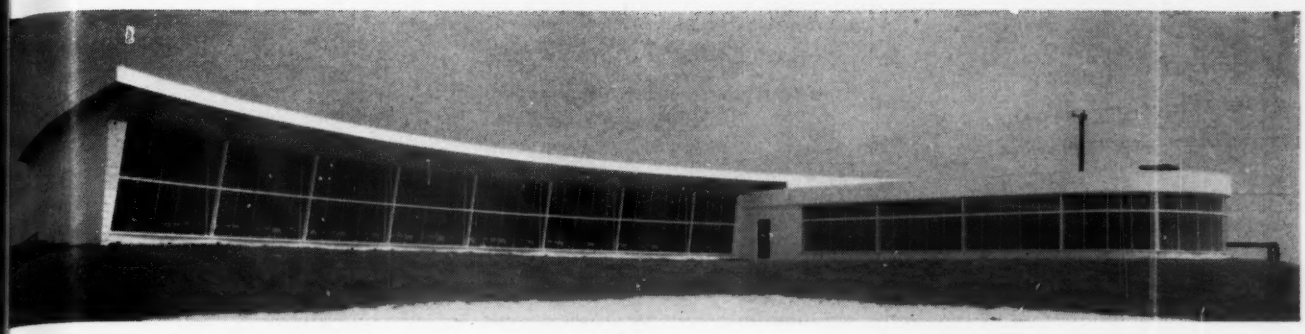

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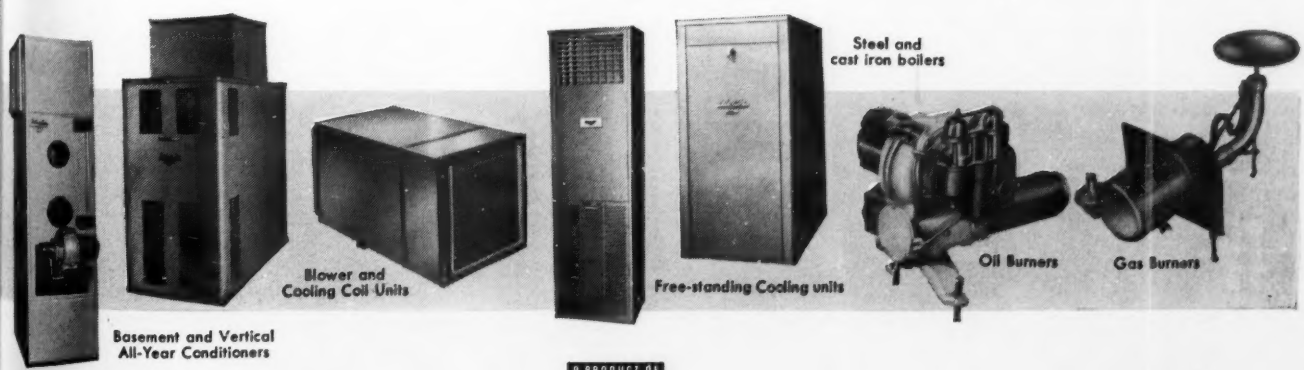

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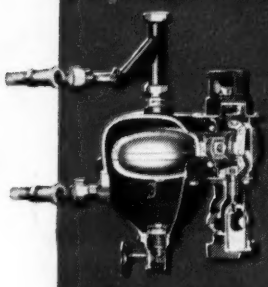

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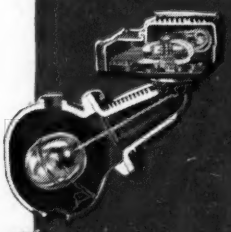

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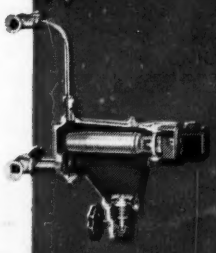

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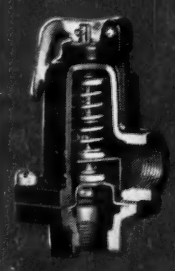

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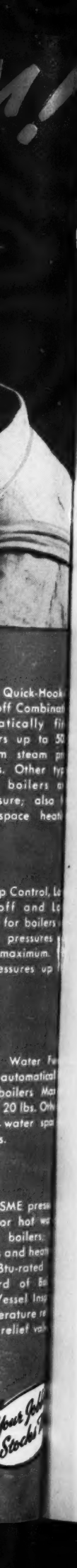
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